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Will H. Tracy May 10

1912

The INLAND SEED CO.

Successors to
CHURCH'S SEED STORE
The ANDERSON SEED CO.

U.S. Department of Agriculture
Washington, D. C.



1912

SPOKANE · WASHINGTON

913 · 915 FIRST AVENUE ❀ ❀

1912

The Inland Seed Co.

1912

SPOKANE, WASH.

To Our Friends and Customers:

Thanks for the many kind words of appreciation that have come to us during the year 1911. These have come from all sections and from all classes of people, covering all manner of subjects and all phases of our business.

While the planning and labor that has been bestowed upon our seeds from the time they were planted until they were delivered again into the planters' hands has been enormous, yet we feel more than repaid from the fact that our object of placing in the planters' hands seeds that could be depended on has been attained and appreciated.

Our plans are even better and more extensive for the year 1912 than they were for 1911, as we will serve a great many more customers.

We fully realize the great importance of the planters securing seeds that, with proper conditions and care, will produce a crop that will be both satisfactory and profitable. As it is impossible to judge the real worth of seeds either by their appearance or price charged, it behooves the farmer and planter to place their orders with a firm that can be relied upon.

We point with a degree of pride to our past record in this matter, and assure you that we are still reaching out after higher and better things.

Yours for Pure, Dependable Seeds,

The Inland Seed Company, Spokane, Wash.

Suggestions

LARGE ORDERS. Any dealer, market gardener, institution or individual wishing seed in large quantities is requested to mail us a list of what is wanted, and we will promptly return it with the very lowest market prices. **A letter of inquiry may save you dollars** if you want to buy in quantity.

SEND MONEY BY Postoffice or Express Money Order, Bank Draft or Registered Letter. Postage stamps will be accepted for small amount. Money sent in any other way is entirely at sender's risk.

USE ORDER BLANK in the front of the Catalog **carefully filling out the blank spaces at the top for shipping directions.**

BE SURE TO SIGN YOUR NAME, giving postoffice and state. **Do not write letters on the same sheet as orders.**

SEEDS POSTPAID BY MAIL. We send all vegetables and flower seeds in quantities of one pound or less by mail, postpaid, to any postoffice in the United States, at the prices named in this Catalog, **unless otherwise stated.**

PREPAY STATIONS. When you send in orders to go by freight or express, be sure that you add money enough to pay freight charges if your station is a prepay, which is always the case where there is no regular agent.

GUARANTEE. Complaints made that seeds are no good should quite as often be attributed to other causes as to the quality of the seeds. There are hundreds of contingencies continually arising to prevent the best seeds always giving satisfaction, such as sowing too deep, too shallow, in too wet or too dry soil; insects of all descriptions destroying the plants as soon as or before they appear; wet weather, cold weather, frosts, chemical changes in the seeds induced by temperature, etc. For the above reasons it is impracticable to guarantee seeds under all circumstances. We give no warranty, express or implied, as to description, purity, productiveness, or any matter of any seeds we send out, and we will not be in any way responsible for the crop. If the purchaser does not accept the goods on these terms they are at once to be returned.

THE INLAND SEED COMPANY

913-915 First Avenue

Spokane, Washington

FOR NORTHERN GROWN SEEDS FROM

No Goods Sent C. O. D. For full instructions about Ordering see inside Front Cover.

Freight Office.....Date....., 191....

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In making your order, please give the price, to avoid delay and error.

List of Standard Vegetable Seeds

—WITH—

General Directions for Cultivation

ARTICHOKE SEED

CULTURE—Sow in April in rich soil and transplant the following spring to permanent beds (in rows or hills) three feet apart and two feet between the plants. Green Artichoke only gives a partial crop the first season, but the beds will be bearing for years. Protect in winter by a covering of leaves or coarse manure.

GREEN GLOBE—Grown for the unripe flower heads, which are highly esteemed by epicures. Large pkg., 10c.

ARTICHOKE TUBERS

ARTICHOKE TUBERS—Planted and cultivated the same as potatoes. Of great value for feeding stock. They are the best hog feed known. They are remarkable for their fattening properties, great productiveness (over one thousand bushels having been raised on one acre) and ease with which they can be grown. If hogs are turned in on them they will help themselves by rooting. One lb., postpaid, 15c; 100 lbs., \$2.50.

ASPARAGUS SEED

One ounce will sow 50 feet of drill.

CULTURE—Sow early in spring in rows one foot apart; when one year old the roots may be taken up and transplanted in permanent beds, which should be made by taking out the soil to a depth of about 16 inches, fill in with 6 inches well-rotted stable manure, then 6 inches of soil somewhat firmed, and place the roots on the same about 10 inches apart with the roots well spread out and cover so that the crown will be about 4 inches below the surface. Keep the surface well raked to keep down the weeds until the shoots start.



PALMETTO—This variety is of southern origin, very desirable on account of its earliness, bright green color, presenting an attractive appearance, excellent flavor and productiveness. Pkt., 5c; oz., 10c; ¼ lb., 25c; lb., 65c.

COLUMBIAN MAMMOTH WHITE—A newer, distinct and valuable variety. The stalks are white, of the largest size; very productive and early. Pkt., 5c; oz., 10c; 2 oz., 15c; ¼ lb., 25c; lb., 75c.

CONOVER'S COLOSSAL—A standard sort; quality first class, spreads less than other sorts. Yields from 15 to 30 sprouts from a single plant. Pkt., 5c; oz., 10c; ¼ lb., 20c; lb., 65c.

BARR'S MAMMOTH—A favorite with market gardeners. Shoots very large, tender, quick growing, and thick to the top. Pkt., 5c; oz., 10c; ¼ lb., 25c; lb., 85c.

BEANS

CULTURE—Beans should not be planted until the ground is warm, as cold and wet weather will cause the seed to rot. For garden culture plant four or five seeds in hills one foot apart, and the rows 18 inches apart. For field culture, make the rows 3 or 3½ feet apart, and cover with two inches mellow soil. Do not hoe or cultivate while the plants are wet with dew or rain, as getting the leaves bespattered with earth causes rust, which injures the crop.

Wax Pod Varieties

IMPROVED GOLDEN WAX BEAN—This is the favorite early wax variety, more largely used than any other. The pods are yellow, stringless, large and handsome. Very productive. Large pkt., 5c; lb., 25c postpaid, express or freight; 1 lb., 15c; 10 lbs., \$1.25.

PROLIFIC BLACK WAX BEAN—A very early wax podded sort; pods round, stringless and of exceptionally delicate and fine quality. Large pkt., 5c; lb., 25c postpaid, express or freight; lb., 15c; 10 lbs., \$1.25.

WARDWELL'S KIDNEY WAX BEAN—This splendid early variety has a pure wax pod, is entirely stringless, and almost rust-proof, as it holds its pods so high above the ground. Large pkt., 5c; lb., 25c, postpaid express or freight; 1 lb., 15c; 10 lbs., \$1.25.

DAVIS WHITE WAX—A hardy, rustless and immensely productive bush variety. The pods are long, nearly straight, white and handsome; cooked when young they are tender, juicy and of fine flavor. The dried bean is kidney shaped, clear white, and a favorite for baking and canning. Popular with canners and market gardeners. Pkt., 5c; lb., 25c postpaid, express or freight; 1 lb., 15c; 10 lbs., \$1.25.



Golden Wax

Green Pod Varieties.

EXTRA EARLY ROUND POD RED VALENTINE—The best green podded, "snap short" bean. The pods are of good quality; this is the most popular of all the green-podded beans. Large pkt., 5c; lb., 25c postpaid, express or freight; 1 lb., 15c; 10 lbs., \$1.25.

NEW STRINGLESS GREEN POD—Long, round, green pods, absolutely stringless; tender, brittle and of finest flavor. While more hardy to withstand frosts, yet it is as tender to cook as any wax pod bean. Early and productive. Pkt., 5c; lb., 25c postpaid, express or freight; 1 lb., 15c; 10 lbs., \$1.25.

Dwarf Horticultural

DWARF HORTICULTURAL—Grows erect, strong and shrubby. The bean is highly prized, green shelled. It is rather large, plump, and beautifully mottled yellow and red. Pkt., 5c; lb., 30c postpaid, express or freight; 1 lb., 20c; 10 lbs., \$1.50.

Broad Windsor

BROAD WINDSOR—Stock erect, strong and shrubby. The bean is large, broad and flat; it is the best green shelled. Pkt., 10c; lb., 25c postpaid, express or freight; 1 lb., 35c; 10 lbs., \$1.50.

BEANS—Continued

Burpee's Bush Lima

BURPEE'S BUSH LIMA—The true bush form of the old large Lime Pole Bean. It grows vigorously to a height of 18 to 20 inches, forming a circular bush, two or two and a half feet in diameter, requiring no poles or stakes, yielding from 50 to 150 fine pods, similar in size and quality to those grown on large White Lima Beans. Large pkt., 5c; lb., 30c postpaid, express or freight; 1 lb., 20c; 10 lbs., \$1.50.

Pole or Running Beans

LAZY WIFE—The pods are produced in large clusters in great abundance and are from four to five inches in length. Dark green, rather flat but broad, quite thick, fleshy, and entirely stringless, retaining their brittleness until fully developed; of unusually rich flavor. The dry beans are pure white in color; excellent for winter use. Lb., 30c postpaid, express or freight; 1 lb., 20c; 10 lbs., \$1.50.

LONDON HORTICULTURAL OR SPECKLED CRANBERRY—Vines moderately vigorous, with large, light colored leaves and purple blossoms; pods short, broad, pale green but becoming streaked with bright red; beans large, ovate, splashed and spotted with wine red, and of the highest quality, either dry or green. Lb., 30c postpaid; lb., 20c; 10 lbs., \$1.50.

KENTUCKY WONDER (Old Homestead)—Best variety, round and fleshy, they mature quickly and are of first for use in green state. Enormously productive. Lb., 30c postpaid, express or freight; 1 lb., 20c; 10 lbs., \$1.50.

DUTCH CASE KNIFE—Good corn hill bean; very early; pods long and flat; beans, white; used green or dry. Pkt., 10c; lb., 30c postpaid; lb., 20c; 10 lbs., \$1.50.

Castor Bean

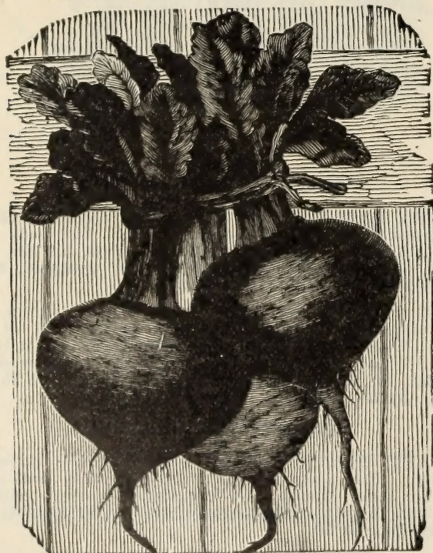
CASTOR BEAN—Used for medicinal purposes and by some claimed to keep moles away. Pkt., 10c; lb., 35c postpaid.

NAVY BEANS—Price, per lb., 25c postpaid.

LADY WASHINGTON—Price, per lb., 25c postpaid.

Beets

CULTURE—Sow as early in the spring as the ground can be worked and every two weeks thereafter, up to the middle of July. For general crops sow about the 20th of May. The soil should be deep, rich and mellow, plowed deep and harrowed until very fine. Drop about one inch deep in drills 12 to 18 inches apart, and when well up thin to four or six inches. The tops of the young beets can be used for greens. One ounce will sow a 60-foot drill. Six pounds to the acre.



Early Blood Turnip

EXTRA EARLY EGYPTIAN—The earliest sort; turnip-shaped, small, symmetrical, deep blood color. Pkt., 5c; oz., 20c; ¼ lb., 50c; lb., \$1.60.

ECLIPSE—Makes rapid growth; top small, quality fine, larger than Egyptian, but not as deep a red in color. Pkt., 5c; oz., 20c; ¼ lb., 50c; lb., \$1.60.

DETROIT DARK RED TURNIP—A fine beet for bunching for market; tops exceptionally small and uniformly upright. The roots are perfect turnip-shape, with small tap-roots. One of the deepest red beets. Quality is of the finest; sweet and tender; best beet for home garden. Pkt., 5c; oz., 20c; ¼ lb., 50c; lb., \$1.70.

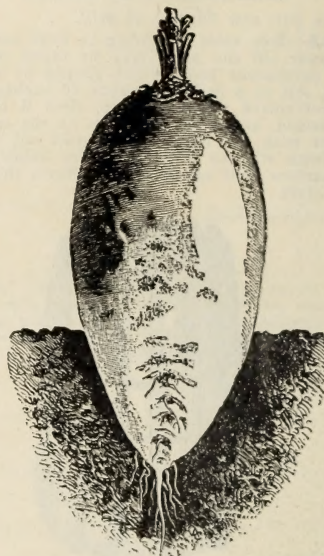
SWISS CHARD OR SEA KALE BEET—Although little known in America, this vegetable is worthy of a place in every garden. The leaf and the leaf stems are the parts used and they are much superior to those of other beets to use as greens. Later in the season the broad, flat, beautiful, wax-like stems are cooked as a salad or pickled. Pkt., 5c; oz., 20c; ¼ lb., 50c; lb., \$1.60.

EARLY BLOOD TURNIP—Roots turnip shaped, deep crimson, tender and sweet. Pkt., 5c; oz., 20c; ¼ lb., 50c; lb., \$1.60.

IMPROVED HALF-LONG BLOOD—An old and popular variety, especially desirable for autumn and winter use. Pkt., 5c; oz., 15c; ¼ lb., 45c; lb., \$1.40.

STOCK BEETS

IMPROVED GOLDEN TANKARD—We have for years insisted that this was the best mangle grown, and each succeeding season strengthens us in the position we took when it was a comparatively unknown sort. We recommend it unqualifiedly as the best mangle by far for dairy farmers. Oz., 10c; ¼ lb., 20c; lb., 50c. Not postpaid, 5 lbs., \$1.75.



New Mangle, One-Half Sugar

NEW MANGLE, HALF SUGAR—A new variety, very much more valuable for feeding purposes than the old sorts, it being very much richer. In addition to this, the size and form have been improved until it yields as much per acre as the best Mangles, and twice as much per acre (bulk or roots) as the rich sugar beet seed; is much easier handled, keeps better and is in every way most valuable to the farmer. Roots large, ovoid in form, very smooth, with few rootlets; light, pink or rose color, with small top. Oz., 10c; ¼ lb., 20c; lb., 50c; express or freight, 5 lbs., \$1.75.

IMPROVED MAMMOTH LONG RED—Our stock is a great improvement on the old variety; the roots are very large, uniformly straight and well formed; color deep red, roots solid and tops small; roots attain a large size, one being exhibited last year which weighed 58 pounds; produce an immense bulk and tonnage. Oz., 10c; ¼ lb., 20c; lb., 50c. Not postpaid, 5 lbs., \$1.75.

Sugar Beets

KLEIN WAUZLEBEN—A hardy and earlier grown variety, which is generally acknowledged to be the best to grow for the manufacture of sugar. Oz., 10c; ¼ lb., 15c; lb., 45c.

BRUSSELS SPROUTS

Cultivated for the small heads that grow in considerable numbers from the main stem. It is a delicacy much esteemed by some. Sow in seed bed middle of spring and transplant and manage as winter cabbage. Pkt., 5c; oz., 20c; $\frac{1}{4}$ lb., 50c.

BROCCOLI

Sow early in spring. Transplant and cultivate the same as cabbage. The broccoli is similar to the cauliflower. They will produce heads in October and November, and should any plant not be forward enough for use before severe frosts, let them be removed to a light cellar, where they will head during the winter.

LARGE WHITE MAMMOTH—Pkt., 5c; oz., 35c; $\frac{1}{4}$ lb., \$1.00.

Cabbage



Early Jersey Wakefield

Early Jersey Wakefield

CULTURE—For early cabbages sow the seed in a hot-bed in March or April, covering the seed from $\frac{1}{4}$ to $\frac{1}{2}$ an inch deep and, when big enough, transplant to another bed. As soon as the ground is in good condition transplant, outside, in rows 2 feet apart and 15 to 20 in a row. The soil should be mellow, rich and well drained. For late crop the seed can be sowed in a cold frame, or even in the open ground, and then transplanted in rows 3 feet one way and 2 feet the other, so as to be able to work with a horse and cultivator.

First Early Cabbages

EARLY JERSEY WAKEFIELD—The earliest and hardiest heading of extra early cabbages. Most gardeners depend upon it for the bulk of their extra early crop. Heads conical, very compact, solid and of excellent quality. The thick, stout leaves and compact habit make it the best sort for very early setting. Pkt., 5c; oz., 20c; 2 oz., 35c; $\frac{1}{4}$ lb., 60c; $\frac{1}{2}$ lb., \$1.00; lb., \$1.75.

CHARLESTON OR LARGE WAKEFIELD—Larger and a little later than the Early Jersey Wakefield, but having the same general shape, except that it is less pointed. A good sort for market gardeners. Pkt., 5c; oz., 25c; 2 oz., 40c; $\frac{1}{4}$ lb., 65c; lb., \$2.00.

EARLY WINNINGSTADT—A desirable kind, having conical, solid heads; a sure header under almost any conditions, and keeps better than most early varieties. Fine and of excellent quality. Pkt., 5c; oz., 20c; 2 oz., 35c; $\frac{1}{4}$ lb., 60c; lb., \$1.75.

HENDERSONS EARLY SUMMER—About 10 days later than the Jersey Wakefield. The head is round, and the largest of the early kinds; can be set close in the row as the outer leaves are small. It remains long without bursting; is firm and of the best quality. Pkt., 5c; oz., 20c; 2 oz., 35c; $\frac{1}{4}$ lb., 65c; lb., \$2.00.

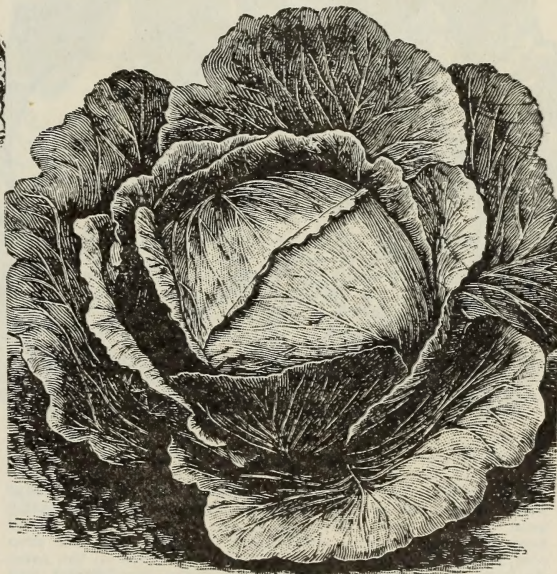
DANISH SUMMER BALLHEAD

DANISH SUMMER BALLHEAD—The Danish Summer Ballhead Cabbage is taking the place among the early varieties that the Danish Ballhead holds among the later sorts. It is a second early, extremely hard, long-keeping and of superb quality, and on light soil it does particularly well, being a sure header. It resembles the Winter Ballhead quite closely, excepting that it is smaller and slightly flat on top. It has traces of curliness on the outside leaves and delicate flavor that suggests Savoy blood. Color is light green, very small with fine ribs in the leaves. Pkt., 10c; oz., 35c; $\frac{1}{4}$ lb., \$1.00; lb., \$3.50.

ALL SEASONS—A Drumhead Cabbage as early and every way is good as Early Summer, but yielding heads from a third to a half as large again. This cabbage, while it matures a day or two later in the spring, when planted in July, matures a day or two earlier than Early Summer in the fall, so that it will average as early, while the solid heads are from a third to half as large again. As a rule our earliest cabbages are only good as early cabbages, being too small for late, or too small and too thin to be kept over winter; but the heads of this cabbage being large and also thick through, make it a most excellent variety either for extreme early or for fall or spring market. Pkt., 5c; oz., 20c; $\frac{1}{4}$ lb., 65c; lb., \$2.00.

ALL-HEAD EARLY—It is among the earliest of the large cabbages. It is fully one-third larger than the Early Summer. The deep flat heads are remarkably solid and uniform in color as well as shape and size. It is very tender and of fine quality. Pkt., 5c; oz., 20c; $\frac{1}{4}$ lb., 65c; lb., \$2.00.

Late or Fall Sorts



DANISH BALL HEAD.

CLOVER LEAF HOLLAND OR DANISH BALLHEAD—Genuine Danish grown stock, short stems. Most remarkable late cabbage yet produced. This is one of the hardiest cabbages in cultivation, and endures both frost and drought that would destroy other varieties. Plants very hardy and compact; leaves very smooth, but thick; head of medium size, round and very solid, being the hardiest heading cabbage we know of, and of the very best quality. Matures quite late, keeps well and is considered by many the best cabbage to hold over for spring markets. Oz., 25c; $\frac{1}{4}$ lb., 85c; lb., \$2.75.

DANISH BALLHEAD, SEED—American grown. Oz., 20c; $\frac{1}{4}$ lb., 60c; lb., \$2.00.

DANISH ROUNDHEAD—An earlier, shorter stemmed, improved strain of the Danish Ballhead Cabbage. The heads are hard and very solid and mature about two weeks in advance of the Ballhead. They also average a little larger and heavier. The inner leaves are, blanched almost pure white, are of sweet flavor, crisp and tender. It is less liable to blight and shows vigorous growth even in the hot summer. Pkt., 5c; oz., 30c; $\frac{1}{4}$ lb., 90c; lb., \$3.00.

CABBAGE—Continued

SELECTED LATE FLAT DUTCH—A low-growing variety; heads large, bluish green, round, solid, broad and flat on the top; an excellent fall and winter variety and a good keeper; it is a sure header. Our stock has been grown from carefully selected heads, and we consider it superior to any other strain of Flat Dutch Cabbage on the market. Large pkt., 5c; oz., 20c; ¼ lb., 55c; lb., \$1.75.

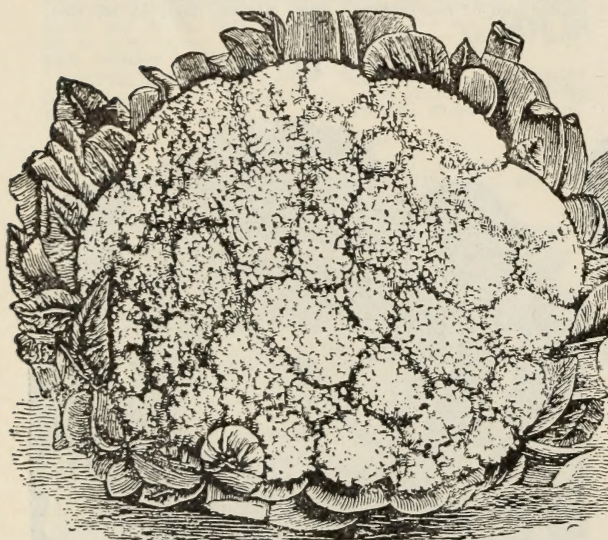
PREMIUM LATE DRUMHEAD—A sure heading sort, which in good, rich soil will grow to an enormous size and on poorer soils will give good sized heads which are very compact, solid and of excellent flavor. Pkt., 5c; oz., 20c; ¼ lb., 60c; ½ lb., \$1.00; lb., \$1.75.

SUREHEAD—A popular sort for main crop; never fails to form uniformly large, solid heads, which are tender and of fine, sweet flavor. An excellent keeper and a good shipper. Pkt., 5c; oz., 20c; ¼ lb., 60c; lb., \$2.00.

DRUMHEAD SAVOY—Fine quality. Pkt., 5c; oz., 15c; ¼ lb., 50c; lb., \$1.50.

ROCK RED—Best red sort, much used for pickling. Pkt., 5c; oz., 20c; ¼ lb., 75c; lb., \$2.00.

Cauliflower



Early Snowball

CULTURE—The soil for cauliflower should be like that for cabbage, but is better if made richer than is ordinarily used for that crop. Give the plants thorough culture and keep free from worms with insect powder. For late crop sow at same time as for late cabbage, and treat in the same manner. It should be borne in mind that cauliflower will not head up good in hot, dry weather, and hence the sowings should be so regulated as to bring it to maturity either before the hot summer weather sets in or not until the cooler weather of the fall. If it receives at this time a liberal supply of water, the size and quality of the heads will be greatly improved. After the heads begin to form, draw the leaves over and pin or tie them together to protect the heads from the sun and keep them white. The heads should be cut for use while the "curd" is compact and hard, as they soon become tough and bitter after they open and separate into branches.

CLOVER LEAF EARLY SNOWBALL (Best Imported Strain)—This is an improved extra early strain of dwarf, compact growth. Under favorable circumstances nearly every plant will make a fine, solid head of good size. It is valuable for both early and late. Pkt., 10c; ½ oz., \$1.25; oz., \$2.25; ¼ lb., \$8.00.

DANISH GIANT OR DRY WEATHER—Large leaved and large flowering, with pure white compact heads. For open ground and forcing. Two weeks later than above, when planted at same time. Very resisting against unfavorable seasons and dry weather. Pkt., 10c; ½ oz., \$1.50; oz., \$2.50.

EXTRA EARLY DWARF ERFURT—Very dwarf, sure to head and one of the earliest. The heads are of good size, pure white, very solid, of excellent quality and delicate flavor. Pkt., 10c; oz., \$2.00.

AUTUMN GIANT—A distinct and valuable late variety. The heads are reasonably large, beautifully white, firm and compact, and, being well protected by foliage, remain for a long time fit to use. The plants should be started and transplanted early in the season to insure their full development. Pkt., 5c; oz., 60c; ¼ lb., \$2.00.

Celery



White Plume Celery.

CULTURE—One ounce will produce about 3,000 plants and sow about 200 feet of row. Sow in light, rich soil, in shallow drills, and cover the seed lightly with finely sifted mold. Prick the seedling out into beds of very rich soil, 3 inches apart. Water freely and shade from the sun until established. When the plants are 5 to 6 inches high transplant to rows 3 to 4 feet apart, according to the variety, allowing 8 inches between the plants in the row. Cultivate freely and earth up to blanch the stems, pressing the soil firmly around the plant almost to the top, care being taken not to cover the tops of the center shoots. Remember that this crop well repays generous treatment.

WHITE PLUME—French grown. A new variety; popular on account of its naturally white leaf stalks, which require less blanching than the other kinds. Tie the tops together and hill up the earth slightly. Its handsome, plume-like top is very ornamental on the table. It is quite early and a fine market sort. Pkt., 5c; oz., 25c; ¼ lb., 75c; lb., \$2.50.

GOLDEN SELF-BLANCHING—French grown. A variety somewhat resembling the White Plume, and, like it, requiring but little earthing to secure perfect blanching. It is of a rich, golden tint when ready for the table; very handsome and of excellent quality. Pkt., 5c; oz., 30c; ¼ lb., 90c; lb., \$3.00.

GIANT PASCAL—A standard sort for later or winter market; large, fine stalks; when blanched, of a deep golden yellow. Pkt., 5c; oz., 20c; ¼ lb., 50c; lb., \$1.50.

CELERIAC, OR TURNIP-ROOTED—Grown exclusively for its roots, which are turnip-shaped, very smooth, tender and marrow-like. The roots are cooked and sliced; used with vinegar they make an excellent salad. Pkt., 5c; oz., 20c; ¼ lb., 60c.

Carrots

CULTURE—The carrot, like other root crops, delights in a sandy loam, deeply tilled. For early crops, sow in the spring as soon as the ground is in good working order; for late crops they may be sown at any time until the middle of June. Sow in rows, about 15 inches apart, thinning out 3 inches between plants. One ounce to 150 feet of drill; 3 lbs. to an acre.

CARROTS—Continued.



DANVERS HALF-LONG.

EARLY SCARLET HORN—A very early variety. Recommended for the market and family garden. Texture fine; very delicate in flavor. Pkt., 5c; oz., 20c; $\frac{1}{4}$ lb., 50c; lb., \$1.60.

GUERANDE, OR OX HEART—A thick carrot, five or six inches long and very blunt at the lower extremity. It grows very rapidly and the root attains a weight of more than a pound. It is tender and of good flavor, and a variety that we can recommend to all market gardeners. Pkt., 5c; oz., 20c; $\frac{1}{4}$ lb., 50c; lb., \$1.60.

CHANTENAY—As a table variety it is first class; in shape it is larger than the Scarlet Horn, and also broader at the shoulder. The flesh is of a beautiful rich orange color and of finest quality. Oz., 20c; $\frac{1}{4}$ lb., 50c; lb., \$1.60.

IMPROVED DANVERS HALF-LONG—A first-class carrot for all soils; in form midway between the Long Orange and Short Horn. The root is of a rich, dark orange color and grows very smooth and handsome, 20 to 30 tons per acre being not an unusual crop. Pkt., 5c; oz., 20c; $\frac{1}{4}$ lb., 50c; lb., \$1.60.

LONG ORANGE IMPROVED—Very desirable for garden or field culture. Pkt., 5c; oz., 20c; $\frac{1}{4}$ lb., 45c; lb., \$1.50.

STOCK CARROTS

LARGE WHITE BELGIAN—Grows one-third out of the ground; root pure white, green above ground, with small top; flesh rather coarse; the roots, on light, rich ground, grow to a large size, and are extensively grown for stock feeding. Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 40c; lb., \$1.00.

MASTADON CARROT—The flesh is white, crisp, solid and very sweet in flavor. It is a vast improvement on the white and green Belgian sorts, which have been favorites in the past, as it is not much more productive, but vastly easier to handle. Oz., 15c; $\frac{1}{4}$ lb., 35c; lb., \$1.00.

YELLOW GIANT—This new carrot is half-long variety, with an immense broad shoulder. The carrot penetrates less than one-half the depth into the ground. The importance of this point should not be overlooked, as it saves about one-half the expense in the harvesting of the crop. The color is a bright yellow, and is perfection for giving the proper color to your butter. Oz., 15c; $\frac{1}{4}$ lb., 35c; lb., \$1.00.

Cucumbers

For very early cucumbers, sow the first of April in a hotbed upon pieces of sod (grass side down), so that they can be readily transplanted to the open ground, in rich soil, when danger of frost is over, or protect by hand glasses. For early use, plant, if the weather has become settled and warm, in hills about four feet apart each way; thin out to four of the strongest plants to each hill, after all danger from insects is over; they succeed best in warm, moist, rich, loamy soil; continue planting at intervals for a succession. The cucumbers should be gathered when

large enough to use, whether required or not; if let to ripen, it destroys their productiveness. For pickles, plant from June until the middle of July.

EARLY CLUSTER—A short, prickly variety; usually grows in clusters. Is a prolific bearer, and, except the Early Russian, is the earliest sort; flavor excellent. Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 75c.

COOL AND CRISP—A strain of the White Spine, but longer and more cylindrical; very early and exceedingly prolific. While it is esteemed most highly as a pickling sort, it is one of the very best for slicing, being tender, crisp and of fine flavor. Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 80c.



EARLY SHORT GREEN, OR EARLY FRAME—A vigorous and productive variety, producing fruit of medium size and regular form; flesh crisp and tender; excellent for the table or pickling when small. Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 75c.

EARLY WHITE SPINE—One of the best sorts for table use; fruiting early and abundantly; fruit uniformly straight and handsome, light green, with a few white spines. Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 75c.

LONG GREEN—A popular variety for pickling and slicing. Large pkt., 5c; oz., 15c; $\frac{1}{4}$ lb., 35c; lb., \$1.00.

BOSTON PICKLING—This variety is very popular with our gardeners to grow for pickles. Fruit small, smooth, bright green and good quality. A great producer. Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 80c.

WEST INDIA GHERKIN—This variety used exclusively for pickling, a distinct species from the common cucumber. It is a vigorous grower and consequently should be planted 6 feet apart. The fruit is very small, almost round and closely covered with spines. Pkt., 5c; oz., 20c; $\frac{1}{4}$ lb., 60c.

CRESS

A delicate, pungent salad plant, very agreeable alone or mixed with other salads. Entirely distinct from common cress, thriving only where its roots are submerged. Sow the seed thinly along the banks of any shallow stream early in the spring. It will increase rapidly if the conditions are favorable, and reappear every spring with no further attention.

TRUE WATER—Per oz., 30c; $\frac{1}{4}$ lb., \$1.00; $\frac{1}{2}$ lb., \$1.75; lb., \$3.25.

CRESS, OR PEPPER GRASS—The leaves, when young, have a warm, pungent taste, and are used as a salad, either alone or mixed with other salad plants. The seed germinates quickly and the plants grow rapidly. As they are milder and more tender when young, the seed should be sown at intervals of 10 to 15 days, making the first sowing as soon as the ground can be prepared. May be cut several times.

CURLED—The best garden variety. Per oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 60c.

Sweet Corn



CULTURE—All varieties of sweet corn may be either sown in rows, 4½ feet apart, and the seeds planted about eight inches in a row, or planted in hills at a distance of three or four feet each way, according to the variety grown or the richness of the soil in which it is planted. Sweet corn should not be planted deeper than one inch to one inch and a half, as it is liable to rot in the ground. Hoe often, drawing the earth against the stems and break off the side shoots. One quart to 300 hills. About one-fourth bushel will plant one acre in drills.

First Early Varieties

PEEP O' DAY NEW SWEET CORN—Ten days earlier than any other; sweet, early, productive. You will not be disappointed in this New Sweet Corn. Recently introduced. Has pleased everyone who has tried it. For flavor, sweetness and productiveness it is ahead of any other early white sweet corn. It will prove a money-maker for the market gardener, and a valuable addition to our list of corn for our short western summers. Lb., 25c postpaid, express or freight; 10 lbs., 15c; 100 lbs., \$1.25.

GOLDEN BANTAM—Of extreme hardness, this can be planted earlier than any other true sweet corn, and will then produce the earliest supply of ears for the table. Planted later it does not develop so quickly as Early Fordhook or Cory, but is vastly superior in rich, sweet flavor. By repeated plantings, Golden Bantam alone will furnish a constant supply of the finest ears throughout the entire season. The stalks grow from three and one-half to four feet in height and produce one or two good ears on each stalk. The ears are about six inches in length, completely filled with eight rows of golden-yellow grains, extending to the rounded tip. The flavor is exceptionally rich and sugary, 'the sweetest of all.' Pkt., 5c; lb., 25c postpaid, express or freight; 10 lbs., 15c; 100 lbs., \$1.25.

EARLY MINNESOTA—A splendid and standard variety; ears are good size, the grains sweet and tender. Lb., 25c postpaid, express or freight; 10 lbs., 15c; 100 lbs., \$1.00.

WHITE COB CORY—An improvement on the Red Cobbed Cory, as well as being equally early. The ears are larger and it has further advantage of having both a white cob and a white grain. A splendid market garden variety and excellent for the table. Pkt., 5c; lb., 25c postpaid, express or freight; 10 lbs., 15c; 100 lbs., \$1.00.

Medium Early Varieties

FERRY'S NEW EARLY EVERGREEN—As is well known, the famous Evergreen Sweet Corn originated over 20 years ago, but while it is the best variety of late sweet corn, no effort has ever been made to improve it in earliness until now. In the New Early Evergreen we have a selection possessing every good quality of Stowell's Evergreen, and resembling it in every respect, except that the stalk is about one foot shorter, more closely jointed, and that it will mature for market 10 to 14 days earlier. It is certainly a valuable addition to the corn list, and we advise our customers to try this variety. Pkt., 5c; lb., 25c postpaid, express or freight; 10 lbs., 15c; 100 lbs., \$1.00.

WHITE MEXICAN—This new variety of recent introduction is four or five days earlier than the White Cob Cory and has all the delicious sweetness of Black Mexican, which before the introduction of this new white corn was said to be the sweetest of all sweet corns. It is a grand acquisition for the market gardener, as well as for the home planter. Lb., 25c postpaid, express or freight; 10 lbs., 15c; 100 lbs., \$1.25.

Late Varieties

STOWELL'S EVERGREEN—The standard main crop variety. Large, well formed ears, deep grained; very sweet and sugary. It is hardy and productive and altogether the best kind for general use. Pkt., 5c; lb., 25c postpaid, express or freight; 10 lbs., 15c; 100 lbs., \$1.00.

Field Seed Corn

A few years ago very little corn was grown in this country and if anyone had made the assertion that 50 bushels or more of corn would be grown per acre he would have been laughed at. Different parties have told us this year that they had 60 bushels per acre. Through experiments and tests carried on for a number of years, this year I have three varieties of acclimated home-grown corn to offer. It has been proven that home-grown acclimated corn ripens from two to three weeks earlier than eastern corn. Therefore, if you wish to grow corn to maturity it is essential that you use home production. If you wish an ensilage or fodder corn some of the later eastern grown varieties produce more per acre. Last year was a poor corn year here and the demand was so great that we were simply unable to fill orders. At the present time the prospects are good for fair quantities of varieties listed, but to insure delivery it is best to place orders early.

MINNESOTA KING (Home Grown)—We regard this corn in some respects as the most valuable early corn for this vicinity. It seems to possess a faculty of growing right along and making a crop during weather and under conditions that would ruin other varieties. In appearance the Minnesota King is remarkably distinct, being a half yellow dent, the kernels are very broad and are a rich golden color. Lb., 20c; 3 lbs., 50c, postpaid. By express or freight, 10 lbs., 60c; 100 lbs., \$3.50.

NORTHWESTERN RED DENT (Home Grown)—This corn is in a class by itself, being a yellow capped Red Dent variety and is one of the most largely grown varieties in North Dakota and Northern Minnesota. It is extremely early and quickly adapts itself to new soil and climatic conditions. Lb., 20c, postpaid. By express or freight, 10 lbs., 75c; 100 lbs., \$4.50.

NORTHWESTERN GOLDEN DENT (Home Grown)—This corn is truly a home product, having been brought up to its present standard by an enterprising farmer in Northern Idaho. Many years ago he brought with him a yellow dent corn which he planted. It proved to be too late a variety and very little matured. The following year he procured a very early golden dent corn and planted a hill of it, then a hill of the yellow dent. The result has been a beautiful Golden Dent that matures and yields well here. Per lb., 20c, postpaid. By express or freight, 10 lbs., 75c; 100 lbs., \$4.50.

Flint Yellow

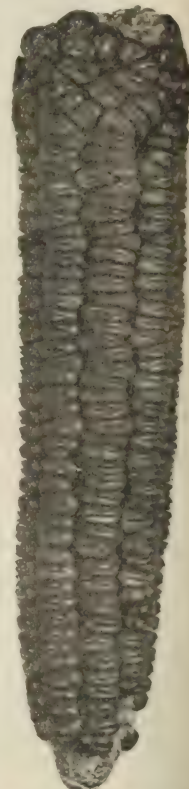
FLINT YELLOW EARLY EIGHT-BOWED, OR EARLY CANADA—The great Yellow Flint Corn. The corn for the extreme north. The greatest of all the Flint varieties. Ears long, of rich yellow color. Will prove to be of the greatest value to the farmers of the far north. Ripens earlier than any of the Flints. Don't fail to try it if you want a big yielding Flint Corn. Per lb., 10c; 10 lbs., 70c; 25 lbs., \$1.50; 50 lbs., \$2.25; 100 lbs., \$4.00.

FODDER CORN—Eastern Grown

PRIDE OF THE NORTH (Yellow Dent)—This is a standard early variety of corn in the east, but is not sure to mature here; in fact, we have been unable to procure any home-grown seed. From the fact that it produces a large amount of fodder and being early enough to get in proper condition for ensilage it has taken the lead over all other corns for this purpose. By express or freight, 10 lbs., 60c; 100 lbs., \$3.50.

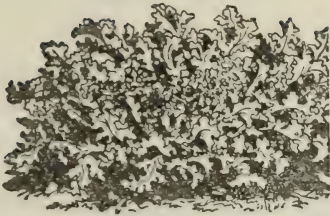
Pop Corn

WHITE RICE—The best corn for popping and for the general market; early, white pointed kernels. Lb., postpaid, 25c; express or freight, 10 lbs. \$1.00.



MINNESOTA KING.

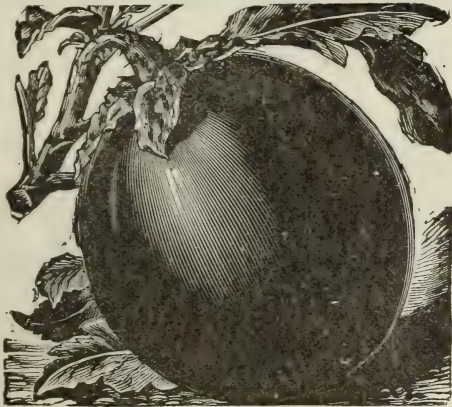
ENDIVE



ENDIVE—A desirable salad when bleached by exclusion from the sun. Pkt., 5c; oz., 15c; ¼ lb., 40c; lb., \$1.25.

EGG PLANT

CULTURE—Sow in hotbeds very early in the spring; thin them out as soon as big enough to be handled to 3 or 4 ounces each way, and transplant to 2 or 3 feet apart in very rich, warm ground. Do not plant them outside till nights are real warm, as the least frost will, if it does not kill them, check the growth, and it will take two or three weeks before they get over it. Hoe often and hill up gradually till they blossom. One ounce to 1,500 plants.



Improved New York Purple Egg Plant

BLACK BEAUTY—This beautiful egg plant is 10 days earlier than the New York Improved. The fruit is broad and thick, of most attractive form and does not fade or change to a lighter color at the blossom end. The fruits set freely and are ready for market early, so the crop can be gathered before danger of frost. Per pkg., 10c; 1 oz., 40c; ¼ lb., \$1.40.

NEW YORK IMPROVED—This is a standard variety both for market and home garden; a favorite everywhere. Our stock is extra selected direct from the best growers in New Jersey. Per pkg., 5c; 1 oz., 40c; ¼ lb., \$1.25.

KALE OR BORECOLE

Kale, or Borecole, is a kind of cabbage that does not form a close and solid head, but a cluster of beautifully curled or wrinkled leaves, that are tender and of excellent flavor. It requires the same treatment as cabbage, and is very hardy, being improved by frost.



Kale

TALL GREEN CURLED SCOTCH—Produces an abundance of dark green, curled leaves. Very hardy. The leading variety. Pkt., 5c; oz., 15c; 2 oz., 20c; ¼ lb., 30c.

DWARF GREEN CURLED OR GERMAN GREENS—A dwarf variety, finer and more compact than the Scotch. Can be sown in the fall, for use early in the spring. Pkt., 5c; oz., 15c; 2 oz., 20c; ¼ lb., 30c.

THOUSAND HEADED KALE—The great demand for this wonderful forage plant proves it to be the most valuable green feed for Pacific coast dairy and stockmen; endorsed by agricultural colleges and government stations. Postpaid, 1 oz., 10c; ¼ lb., 20c; 1 lb., 60c.

KOHL-RABI

Or Turnip-Rooted Cabbage

The Kohl-Rabi is a vegetable intermediate between the cabbage and turnip, and combines the flavor of each. The edible part is a turnip-shaped bulb, formed by the enlargement of the stem. When used for the table this should be cut when quite small, as it is then very tender and delicate, but if allowed to reach its full size it becomes tough and stringy.

EARLY WHITE VIENNA—The earliest and best for forcing; very tender; excellent for table use. Pkt., 5c; oz., 20c; lb., 60c.

Lettuce

CULTURE—The early sowing may be made under glass, in January and February, keeping the plants thin and admitting plenty of air every fine day. For a succession, outside, sow every two weeks as soon as the ground is open, in drills one foot apart, covering the seed about one-quarter of an inch deep and thinning out to 6 or 8 inches in the row. For a cut salad sow thicker and do not thin out. They do best in rich and moist soil. One ounce to 3,000 plants.



Early and Forcing Varieties

MAY KING—The plants are of quick growth, practically all head and extremely handsome. From early spring plantings in the open ground they grow quickly to a diameter of six to seven inches with the broad, light green outer leaves folding closely about the round solid head; in cool weather the edges of these outer leaves are lightly tinged with brown. The inner leaves (practically the entire head) are blanched to a rich golden yellow and have a specially fine, rich, buttery flavor. The round solid heads are so firmly folded that they can be shipped to distant markets and arrive in good condition. We recommend repeated plantings of this new early variety in the spring, and again during August and September for fall use. Pkt., 5c; oz., 10c; ¼ lb., 30c; 1 lb., \$1.00.

BIG BOSTON—It is an early variety of Head Lettuce either for forcing or open ground. It forms large, solid heads of a good light green color, and is very slow to go to seed. The leaves are beautifully marked and blistered and very crisp and tender and of excellent flavor. By these blistered leaves it distinguishes itself from any other kind of lettuce now grown. The shape of the head resembles somewhat the Hanson, but is more oblong. This stock is grown expressly for gardeners' use. Buy from us and get the true stock. Pkt., 5c; oz., 10c; ¼ lb., 30c; lb., \$1.00.

LETTUCE—Continued.

GRAND RAPIDS (Seed Black)—As a lettuce for greenhouse forcing, this variety undoubtedly stands at the head of the list, being of quick growth, little liable to rot and standing for some days after being ready to cut. The plant is upright and forms a loose head or cluster of large, bright leaves, slightly crimped and blistered and rather thin. The leaves do not wilt quickly after cutting, so that the variety will stand shipping long distances better than most sorts. Pkt., 5c; oz., 10c; ¼ lb., 30c; lb., \$1.00.

Loosehead or Cutting Varieties

PRIZEHEAD (W. S.)—Large, loose-headed sort, the leaves are tinged with brown, very heavy. Pkt., 5c; oz., 10c; ¼ lb., 30c; lb., \$1.00.

EARLY CURLED SILESIA—One of the best curled varieties, either for forcing or for early sowing out of doors. Very popular with market gardeners and private planters. Pkt., 5c; oz., 10c; ¼ lb., 30c; lb., \$1.00.

BLACK-SEEDED SIMPSON—Very large, loose heads of curly, golden-yellow leaves, which are thin and tender. It stands summer heat splendidly and is valued for frame culture. Pkt., 5c; oz., 10c; ¼ lb., 30c; lb., \$1.00.

Butterhead Lettuce

SALAMANDER—A bright green attractive summer variety, producing large, solid heads, very smooth, tender leaves, and of the finest quality. Pkt., 5c; oz., 10c; ¼ lb., 30c; lb., \$1.00.

Solid Crop Head Lettuce

IMPROVED HANSON—We have a very fine stock of this variety, and can recommend it as one of the best on our list. It is a fine heading variety of the largest size; solid, sweet, tender and crisp throughout, and entirely free from any bitter taste; for home use one of the best lettuces known. Pkt., 5c; oz., 10c; ¼ lb., 30c; lb., \$1.00.

ICEBERG—Has an unusually solid head. The white main ribs of the leaves curve toward the center, which keeps the interior thoroughly bleached. It is quickly growing and always crisp and tender, whether propagated in early spring or in the hot days of summer. Pkt., 5c; oz., 10c; ¼ lb., 30c; lb., \$1.00.

CRISP-AS-ICE—It is a beautiful lettuce of the cabbage type. The solid heads are of great size, and leaves so tender and brittle as to have suggested the name bestowed upon it. The head has a rich, yellow heart. The leaves are thick and glossy, somewhat curled, of a good and attractive green color, variegated with bronze. This lettuce cannot be overestimated or overpraised for home use in spring and summer. Pkt., 5c; oz., 10c; ¼ lb., 30c; lb., \$1.00.

Cos Lettuce

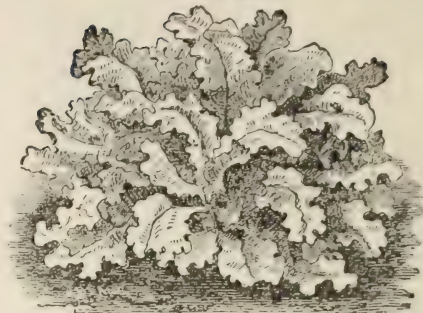
PARIS WHITE COS—The Cos lettuce differs entirely in shape from other varieties, the head being elongated and of conical form, eight or nine inches in height and five or six inches in diameter. The outer coloring of this variety is yellowish green. To be had in perfection it requires to be tied up to insure blanching. Millions of this variety are annually grown to supply the markets of London alone. This variety is the best of all Cos varieties. All of the foregoing lettuce, unless otherwise quoted: Per pkt., 5c; oz., 10c; ¼ lb., 35c; ½ lb., 55c; 1 lb., \$1.00.

LEEK

One ounce will sow 100 feet of drill.

LARGE LONDON, OR SCOTCH FLAG—This leek is reported more delicate than the onion for soup, etc. Sown in seed bed middle of spring; when the plants are three or four inches high, transplant them into rows wide enough apart to admit the hoe between them. With good culture they may be grown five or six inches in circumference. Pkt., 5c; oz., 15c; ¼ lb., 45c; lb., \$1.30.

MUSTARD



Mustard

Used alone as "greens" or with cress as salad. Sow any time in the spring, in rows, and thin out as necessary.

SOUTHERN GIANT CURLED—We offer a very fine strain of the true curled leaf. Pkt., 5c; oz., 10c; ¼ lb., 20c; lb., 60c.

WHITE ENGLISH MUSTARD—Leaves mild and tender when young; seeds yellow. Pkg., 5c; oz., 10c; ¼ lb., 15c; 1 lb., 35c.

MUSHROOM SPAWN

With intelligent care and good spawn, mushrooms can be made to pay handsomely. They can be successfully grown in a dry cellar, under the benches of a greenhouse, or in sheds, where the temperature can be kept from 50 to 60 degrees through the winter.

LAMBERT'S PURE CULTURE—A new kind of spawn, without a doubt the best; much superior to the common English. It comes in bricks, weighing about 20 ounces. These are broken up into pieces the size of a walnut and put into the bed one foot apart each way. White, cream, brown or light brown. Per brick, 25c; postpaid, 35c; by express, not prepaid, 5 bricks \$1.00.

Illustrated book on Mushroom Culture, containing the latest methods of raising, preserving and cooking mushrooms. 15c, postpaid.



Musk Melon

CULTURE—Musk melons do best on newly broken sod or prairie land, or on soil prepared by plowing under a crop of rye or wheat in the spring. The seed should not be planted until the soil has become thoroughly warmed, about corn-planting time. Plant five or six seeds to the hill in hills four to six feet apart. Rich soil or well-rotted manure should be used in the hills; when the plants are of sufficient size, thin out to three vines to the hill. After the vines have grown about a foot long, pinch off the ends; this will cause them to become stronger and to throw out branches.

Green-Fleshed Varieties

HACKENSACK EXTRA EARLY IMPROVED—A selection from an improvement on the old Hackensack, and similar in shape and appearance; nearly as large and fully 10 days earlier; one of the finest for market gardeners; quality perfect. Pkt., 5c; oz., 15c; ¼ lb., 35c; lb., \$1.00.

EARLY PROLIFIC NUTMEG—Fruit of medium size, slightly ribbed, globular. Skin dark green, becoming yellow when overripe, and nearly covered with broad, shallow nettings. Pkt., 5c; oz., 15c; ¼ lb., 35c; lb., \$1.00.

BANANA—Melons very slender and two or three feet long. A very fragrant variety, and if not picked until thoroughly ripe, of very good quality. Its flesh and flavor, as well as its shape, remind one of a great, luscious banana. Pkt., 5c; oz., 25c.

MUSK MELON—Continued.

PEACH OR GARDEN LEMON—The fruit is about the size of a large peach, oval shaped and of a bright orange yellow color, somewhat russeted. When it first ripens it is quite hard and has very little flavor, but they soon become mellow, not sweet, and have a rich flavor. For sweet pickles, pies or preserving they are superb. Pkt., 5c; oz., 25c.

BURRELL GEM—Burrell's Gem has a tough, thin rind, well arched ribs, covered with a closely interlaced gray netting; shape elongated, being about $4\frac{1}{2}$ inches in diameter by 6 inches long, flesh of a reddish orange, very thick, fine grained and spicy, seed held firmly in a triangular cavity. This is the secret of a good shipping melon. If the seeds shake loose easily a melon will quickly decay. Pkt., 5c; oz., 15c; $\frac{1}{4}$ lb., 35c; lb., \$1.00.

POLLOCK'S RUST-RESISTANT—Mr. Pollock originated the melon bearing his name by selecting seed from a plant which had not rusted out of a field that the rust had destroyed. This point has been observed in selecting stock seed until the melon, while not being perfectly rust-proof, is practically so. The main difference between it and the original, or old style, Rocky Ford is more uniform and on most land runs almost entirely standard size crates. Pkt., 10c; oz., 20c; $\frac{1}{4}$ lb., 40c; lb., \$1.25.

THE CELEBRATED ROCKY FORD MUSK MELON TRUE STOCK

THE ROCKY FORD MUSK MELON—Is a new and most valuable introduction, and has attained in an incredibly short time a national reputation. It is of the Netted Gem type, oval in shape, averaging from four and one-half to five inches in length, of a delicious flavor, very fine and smooth grained flesh, of a light green color throughout when ripe. From the district in which it has been for the past several years so extensively grown, Rocky Ford, Colorado, and from which point these melons are shipped in their season by the earload to nearly every station in the United States, till the name Rocky Ford has become a synonym for excellence in cantaloupes. Pkt., 5c; oz., 15c; $\frac{1}{4}$ lb., 25c; lb., 70c.

Salmon-Fleshed Varieties

EMERALD GEM—This is a new variety of excellent quality; it is of medium size. The skin, white-ribbed, is perfectly smooth and of a deep emerald green color. The flesh is thick and of a suase salmon color, and ripens to the green rind. It is peculiarly crystalline in appearance, and so very juicy and rich that it almost drops to pieces when dipped out with a spoon. The flavor is very sweet and luscious. The vines are hardy and very prolific, and the melons mature extremely early. Pkt., 5c; oz., 15c; $\frac{1}{4}$ lb., 30c; lb., 85c.

OSAGE OR MILLER'S CREAM—The great popularity which this melon has attained is due mainly to its peculiar luscious, spicy flavor and its perfect shipping qualities.

The skin is very thin, of a dark green color and slightly netted. The flesh is of a salmon color, remarkably sweet, extremely thick, and delicious to the rind. It is also very productive. It is a remarkable keeper, and will stand shipping. Pkt., 5c; oz., 15c; $\frac{1}{4}$ lb., 30c; lb., 85c.

PAUL ROSE—A new variety. A successful cross between the Osage and Netted Gem. It combines the sweetness of the former with the fine netting of the Gem and is even a better shipper than that variety. The melons grow uniform in shape and size. The flesh is remarkably thick, making the melons very solid and heavy, and of a beautiful salmon or orange color; deliciously sweet and melting. Pkt., 5c; oz., 15c; $\frac{1}{4}$ lb., 30c; lb., 85c.

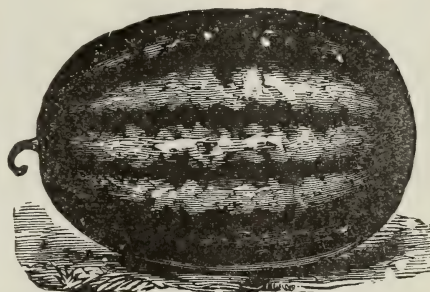
Our Rocky Ford Cantaloupe Seed is from two fields that took the two first premiums at the Colorado State Fair.

Water Melon

FORDHOOK EARLY—An extra early watermelon of large size. Attain an average weight of 30 pounds. The rind is tough, making it desirable for shipping purposes. Flesh is light red and is very sweet. Oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 65c.

KLECKLEY'S SWEETS, OR MONTE CRISTO—We regard this as the finest of all the medium early watermelons for home use. The rind is too thin and tender to stand long distance shipment. The fruits are uniform. Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 30c; lb., 75c.

HALBERT HONEY—A new, exceedingly sweet and deliciously flavored melon, similar in size and shape to Kleckley's Sweets, but of more regular form and much more productive. It is of handsome, long, oval shape, averaging about 18 inches in length and about 6 inches in diameter. The skin is an attractive, very dark green; the flesh is of a beautiful bright red, extending almost to



the outer rind; is very tender and melting, and entirely free from stringiness. The rind, too, is so thin and brittle that it cracks open very easily and will not stand hauling or shipping long distances. For home use and nearby markets it is unequaled in quality; hardy, early, and productive. Pkt., 10c; oz., 15c; $\frac{1}{4}$ lb., 30c; lb., 80c.

ICE CREAM OR PEERLESS—One of the best melons in cultivation. Rind thin, light mottled green. Flesh bright scarlet; solid to the center; sweet as honey. Large pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 65c.

FLORIDA FAVORITE—Oblong in shape, growing to a very large size; rind dark, with light green stripes; flesh light crimson, crisp and deliciously sweet. Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 65c.

CUBAN QUEEN—A very fine variety, growing to a great size; flesh bright red, solid and sweet. The skin is beautifully striped dark and light green. Melons are wonderfully solid, rind thin. They are enormously productive and ripen early. Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 65c.

CITRON—For preserving; grows uniformly round and smooth; striped and marbled with light green; flesh white and solid. Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 80c.

Onion Seed

CULTURE—Onions do best on a rich loam, previously cultivated for two years. Stiff clay and light sand are equally unfavorable. The land should be highly fertilized with well-rotted manure, complete fertilizers, etc. Fresh stable manure has a tendency to produce soft onions. Drill in four or five pounds of seed per acre, one-half inch deep. If sets are wanted, use 60 to 80 pounds per acre. Six to ten bushels of sets will plant an acre. Fine, marketable size onions (according to variety planted) are easily produced the first year from early spring-sown seed. Culture should be frequent though shallow. The same ground may be used for onions, season after season, if well fertilized annually. Bone meal is an excellent fertilizer. Winter storage demands dryness and protection from sudden changes. Onions should never be handled while frozen.

White Varieties

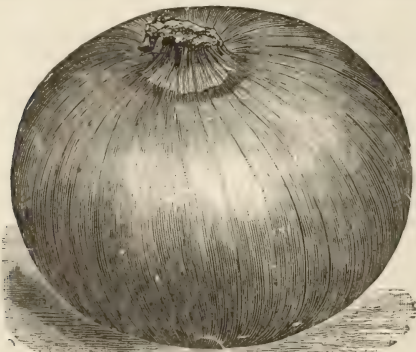
WHITE GLOBE—A handsome, white, globe-shaped variety; flesh fine, very white, rich and sweet; it is also one of the best keepers of the silver-skinned kinds. Pkt., 5c; oz., 35c; ¼ lb., 75c; lb., \$2.50.

WHITE PORTUGAL, OR AMERICAN SILVERSKIN—Produces early onion of mild flavor; largely used for growing sets and pickles. Large pkt., 5c; oz., 25c; ¼ lb., 65c; lb., \$2.00.



WHITE QUEEN, OR BARLETTA—Remarkable for its earliness and mild flavor; it is small and white-skinned; the leading variety for pickling purposes. Pkt., 5c; oz., 25c; ¼ lb., 65c; lb., \$2.00.

BERMUDA ONIONS—These onions grow to an immense size and are of beautiful form. The skin is very thin; flesh white, fine-grained, of mild and pleasant flavor. It will grow an onion from one to one and a half pounds from seed, but to attain full size, set out the bulbs the following spring. Pkt., 5c; oz., 35c; ¼ lb., 75c; lb., \$2.25.



Yellow Varieties

YELLOW DANVERS—The leading large yellow kind, round, slightly flattened, flesh fine-grained, rather mild, very rich and sweet; one of the best keepers and shippers, and one of the most productive kinds. Pkt., 5c; oz., 15c; ¼ lb., 45c; lb., \$1.40.

YELLOW GLOBE DANVERS—This is the standard variety for winter use, producing well-ripened bulbs averaging two inches in diameter and nearly globe shaped. Skin a light golden brown or pale yellow; flesh pure white, crisp and mild in flavor. Pkt., 5c; oz., 15c; ¼ lb., 45c; lb., \$1.40.

OREGON YELLOW DANVERS—It is a cross between the flat and the globe, one of the best keepers for our western climate. Pkt., 5c; oz., 20c; ¼ lb., 45c; lb., \$1.40.

AUSTRALIAN BROWN ONIONS—Are of medium size, though growing quite large under favorable conditions. Wonderfully hard and solid, the bulbs are most attractive for market, both as to form and appearance. Pkt., 5c; oz., 15c; ¼ lb., 40c; lb., \$1.25.

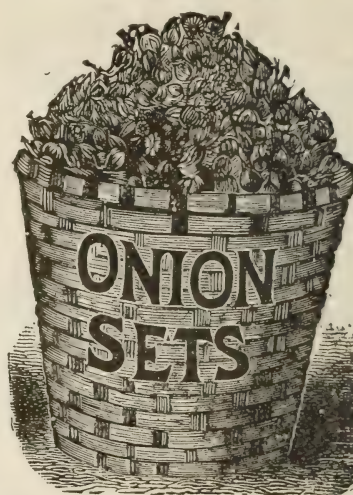
MAMMOTH PRIZE-TAKER—Genuine seed of this variety produces the handsomest, largest Yellow Globe onion in the list. The yield per acre is larger than that of any other variety. Pkt., 5c; oz., 20c; ¼ lb., 50c; lb., \$1.50.

Red Varieties

EXTRA EARLY RED FLAT—Deep red in color; resembles the Red Wethersfield, except that it is much earlier and somewhat smaller; desirable for early market. Pkt., 5c; oz., 20c; ¼ lb., 50c; lb., \$1.60.

LARGE RED WETHERSFIELD—The standard red variety. Bulb large and somewhat flattened, oval-shaped; skin deep purple red; flesh purplish white, moderately fine grained and rather strong flavor. Very productive. Oz., 25c; ¼ lb., 60c; lb., \$1.60.

Onion Sets



BOTTOM SETS—Are grown from seed that has been sown too thick to attain a large size. The small onions thus obtained are planted out, and are ready in a short time to pull as green onions for the table or bunched for the market. If left to stand they make ripe onions of the best quality, and come to maturity some six weeks earlier than a crop grown direct from the seeds.

YELLOW ONION SETS—These will produce handsome, well-ripened bulbs early in the season. By mail, 25c lb. For large quantities, write for prices.

OKRA OR GUMBO

The pods sliced are esteemed for soups, stews, etc., and whether used green or dried, must be gathered when young.

WHITE VELVET, HENDERSON'S—Large round, smooth pods; never ridged; prolific. Pkt., 5c; oz., 10c; ¼ lb., 20c.

PARSLEY

Very useful for flavoring soups, meats, and for garnishing. The green leaves are used for flavoring, or they may be dried crisp, rubbed to a powder, and kept in bottles until needed.

CHAMPION, MOSS CURLED—A compact growing, finely cut and much curled variety of bright green color. Pkt., 5c; oz., 10c; ¼ lb., 20c; lb., 65c.

PEANUTS

The peanut thrives and produces best on a light, sandy, fertile soil with a good clay subsoil. It possesses a long tap-root, which extends deep into the earth, drawing thence the nutriment which is beyond the reach of many of our cultivated crops. Per lb., 35c postpaid.

Garden Peas

Very scarce and high.

CULTURE—Sow early in the spring in rows, 18 to 24 inches apart. The peas will give quicker returns if covered only 1 inch deep, and where earliness is the most important, they may be treated in that way, but longer pods and more of them will be produced if the seed is planted in trenches 3 to 6 inches deep and covered with



1 or 2 inches of soil. When the plants are 5 or 6 inches high, fill the trench level with the surface. Sow every two weeks for succession. For field culture, they may be sown broadcast and plowed under. Two pounds for 100 feet of drill; 2 or 3 bushels in drills per acre.

Extra Early Peas

ALASKA, OR EARLIEST OF ALL—Earliest and best of all the blue smooth varieties. A smooth, blue pea, which in evenness of growth of vine and early maturity of pods is unequalled by any other extra early pea. Vines two to two and one-half feet high, unbranched, bearing four to seven long pods, which are filled with medium sized, bright green peas of excellent flavor. A great favorite with our market gardeners for fall and early spring planting. Pkt., 5c; lb., 30c postpaid, express or freight; lb., 20c; 10 lbs., \$1.35.

McLEAN'S LITTLE GEM—A sweet, wrinkled pea, coming in a little later than the American Wonder; grows taller and continues in bearing longer. The quality of the pea is very superior. Height, 15 inches. Pkt., 5c; lb., 30c postpaid, express or freight; lb., 20c; 10 lbs., \$1.75.

AMERICAN WONDER—The earliest and best of the wrinkled sorts. A great favorite for family use. Has stout, branching vines, about nine inches high, and covered with well-filled pods, exceedingly sweet, tender and well flavored peas. Dry peas, medium size, much wrinkled and flattened, pale green. Pkt., 5c; lb., 35c postpaid, express or freight; lb., 25c; 10 lbs., \$2.00.

Second Early Sorts

NOTT'S EXCELSIOR—The best early dwarf pea. It combines to a wonderful degree the good qualities of the American Wonder and Premium Gem peas. The vines are larger and more productive than American Wonder and earlier than Premium Gem. The peas, in sweetness and quality, are unsurpassed. The most desirable sort for the market gardener and unexcelled for the home garden. Very hardy. It outyields them 20 to 30 per cent. The pods are one-third longer, and each pod contains from six to nine peas, which are usually fine flavored and tender. Pkt., 5c; lb., 30c postpaid, express or freight; lb., 20c; 10 lbs., \$1.75.

GRADUS—This extra early wrinkled pea bears pods of large size, and combines quality with earliness. It is very hardy; can be planted fully as early as the smooth peas; grows vigorous and healthy; vines two and a half feet in height; very prolific. The quality and flavor are delicious, and the peas remain tender and sweet for a long time.

Pkt., 5c; lb., 35c postpaid, express or freight; lb., 25c; 10 lbs., \$2.25.

MELTING SUGAR—The kind that has sweet, broad pods, and are used the same way as snap and string beans. This is the most popular of the edible podded varieties. The pods are large, straight, very tender and finely flavored. Vines medium height. Pkt., 5c; oz., 10c; lb., 35c postpaid.

Late Varieties

TELEPHONE—Produces those handsome long pods. A great favorite with our market gardeners. Immensely productive, of the finest quality and excellent sugary flavor; vines very strong; the pods are of large size, filled with large, delicious peas. Height, four feet. Owing to crop failure we are unable to supply above variety.

CHAMPION OF ENGLAND—Very rich and fine flavored; very productive; wrinkled. Height, four to five feet. Pkt., 5c; lb., 30c postpaid, express or freight; lb., 20c; 10 lbs., \$1.75.

STRATAGEM—One of the best of the large, podded peas; the pods are of immense size, filled with large, dark green, wrinkled peas of the finest quality; vine of medium height, but very stocky with broad, light green leaves, and bearing an abundance of large, handsome pods. Pkt., 5c; lb., 30c postpaid, express or freight; lb., 20c; 10 lbs., \$1.75.

Pumpkins

CULTURE—Sow in good soil in May, when the ground has become warm, in hills eight or ten feet apart each way, or in fields of corn about every fourth hill; plant at the same time with corn; always avoid planting near other vines, as they will hybridize.



EARLY SUGAR—Fine-grained, sweet and prolific; small in size, but one of the best for pies. Pkt., 5c; oz., 10c; ¼ lb., 20c; lb., 60c.

LARGE CHEESE—A popular variety in the South. Fruit flattened, the diameter being two or three times more than the length. Skin mottled light green and yellow, changing to rich cream color as it matures; flesh tender and of excellent quality. Pkt., 5c; oz., 10c; ¼ lb., 20c; lb., 60c.

BIG TOM—This is one of the largest, most uniform growing and productive varieties known; it has been produced by an annual selection being made for a number of years from the old Golden Marrow by one of the largest canning establishments in Ohio, and who annually grow hundreds of acres especially for canning; they say that they can find no variety equal to it for this purpose. Per oz., 10c; ¼ lb., 20c; lb., 50c.

CONNECTICUT FIELD—A productive, large, orange-colored field pumpkin, usually grown for stock feeding, but it makes good pies. Pkt., 5c; oz., 10c; ¼ lb., 20c; lb., 40c.

MAMMOTH PRIZE—The largest pumpkin grown; has attained a weight of 225 pounds. If you wish to see just how large a pumpkin can grow, try the Mammoth Prize. The quality is excellent. Pkt., 5c; oz., 15c; ¼ lb., 30c; lb., \$1.00.

Parsnips

CULTURE—Parsnips do the best in rich, deep soil, but will make good roots on any soil which is deep and mellow and moderately rich. As the seed is sometimes slow to germinate it should be sown as early as possible. Cover one-half inch deep and press the soil firmly over the seed. Give frequent cultivation and thin the plants six or eight to the foot. One ounce will sow 150 feet of drill; five pounds, one acre.



IMPROVED GUERNSEY (Improved Half-Long)—A greatly improved and wonderfully fine strain of Guernsey parsnip. The roots do not grow so long as the Hollow Crown, but are of greater diameter and more easily gathered. It is a very heavy cropper. The roots are very smooth, the flesh is fine grained and of most excellent quality. Pkt., 5c; oz., 10c; ¼ lb., 35c; lb., \$1.00.

LONG SMOOTH, OR HOLLOW CROWN (Abbott's Improved Long Sugar, or Long White Dutch Parsnip)—A great cropper; tender, sugary, and considered the best for general cultivation. Parsnips are improved by remaining exposed to the frost. Pkt., 5c; oz., 10c; ¼ lb., 35c; lb., \$1.00.

Peppers



Pepper

Sow the seeds early in hotbeds, or later, when the weather becomes warm, in open beds; when two or three inches high, transplant to a warm, mellow soil, in rows eighteen inches apart at one foot apart in the row. Guano and hen manure are excellent fertilizers, and will greatly increase the yield.

RUBY KING—An improved American sort, reaching the largest size, yet retaining the symmetrical shape of the smaller sorts. It is very bright colored, beautiful, sweet and mild flavored. Pkt., 5c; oz., 30c; ¼ lb., 75c.

LARGE BELL, OR BULL NOSE—A large, mild, thick-fleshed variety. One of the best for stuffed pickles. Pkt., 5c; oz., 30c; ¼ lb., 5c.

LONG RED CAYENNE—Brilliant coral-red pods, three or four inches long, and a prolific bearer; very pungent and used very largely with pickles when green. Pkt., 5c; oz., 25c; ¼ lb., 75c.

RED CHILI—Small, bright red peppers, very hot and pungent, and generally used for making "Pepper Sauce." Very prolific. Pkt., 5c; oz., 25c; ¼ lb., 75c.

RHUBARB OR PIEPLANT



CULTURE — Rhubarb succeeds best in deep, rich, somewhat retentive soil. The richer its condition and the deeper it is stirred the better. Sow in drills an inch deep, and thin out the plants to six inches apart. In the fall transplant the young plants into very highly manured and deeply stirred soil, setting them four to six feet apart each way, and give a dressing of coarse manure each spring. The stalks should not be plucked until the second year, and the plant never allowed to exhaust itself by running to seed.

VICTORIA, OR MAMMOTH—Very large; finest cooking variety. Pkt., 5c; oz., 15c; ¼ lb., 45c; lb., \$1.40.

Radishes

CULTURE—Radishes must make a rapid growth to be crisp and tender. For early use seed should be sown in the hotbed, in drills four or five inches apart and half an



SCARLET TURNIP WHITE-TIPPED RADISH.

inch deep. For an early crop in the open ground select a sandy soil and a warm south border under the shelter of a fence or building, if possible. A load of fresh, sandy loam from the woods is better for the radish crop. As soon as the first leaves appear sprinkle with soot or ashes to save from the little turnip fly. One ounce will sow 150 feet of row.

THE SECRET IN GROWING GOOD RADISHES consists chiefly in the observance on the part of the grower of three points. First, they should be grown on quick, light soil. Second, they should be given plenty of water; and last, but not by any means least, the right kind of seed should be sown. Radishes grow very quickly, and if not supplied with plenty of water are apt to be pithy.

Early Round Varieties

EARLY SCARLET TURNIP, WHITE TIPPED—American grown. The favorite variety for outdoor cultivation; medium size; uniform shape; color bright scarlet sharply contrasted with white tip, which makes it most attractive. It grows quickly; flesh white, crisp and of the best quality. Pkt., 5c; oz., 10c; 2 oz., 15c; ¼ lb., 20c; lb., 60c.

EARLY SCARLET TURNIP, WHITE TIP—French grown. This is similar to the American grown, but owing to the selection of only the best roots for seed stock, this seed produces more perfect bulbs. Pkt., 10c; oz., 15c; ¼ lb., 30c; lb., 75c.

RADISH—Continued.

EARLY ROUND DEEP SCARLET—Similar in form to the Scarlet Turnip-Rooted, but much darker in color; flesh white, very crisp and tender; roots small, well adapted for growing in frames. Pkt., 5c; oz., 10c; 2 oz., 15c; ¼ lb., 20c; lb., 60c.

EARLY CRIMSON GIANT—The largest early Scarlet Turnip-Shaped Radish. A new early radish, double the size of any of the other early turnip-shaped type, but notwithstanding its immense size, does not get hollow and pithy. The flesh is a sparkling white, solid, crisp and juicy, and of the mildest flavor. The shape of the bulbs vary from round to almost oval, but the bright, deep crimson color of the skin remains quite constant. Excellent for both forcing and the open ground. Pkt., 5c; oz., 10c; ¼ lb., 25c; lb., 75c.

Olive Shaped

FRENCH BREAKFAST, OR HALF-LONG WHITE TIPPED—Medium size, of quick growth, crisp and tender; terminates more abruptly than the Half-Long Scarlet, lower end and tap root white. Pkt., 5c; oz., 10c; 2 oz., 15c; ¼ lb., 20c; lb., 60c.

Long Varieties

EARLY LONG SCARLET—The leading variety either for the family or market garden. From six to eight inches long, standing nearly half above the ground; bright scarlet, smooth, crisp, tender and mild. Pkt., 5c; oz., 10c; 2 oz., 15c; ¼ lb., 20c; lb., 60c.

IMPROVED CHARTIER—Roots long, tapering rather abruptly and attaining a very large size. Of rapid growth it is soon ready for the table, remaining crisp and tender until fully grown. Color, scarlet above, shading into white at the tip. Flesh white and mild flavored. Pkt., 5c; oz., 10c; 2 oz., 15c; ¼ lb., 20c; lb., 60c.

NEW WHITE ICICLE—Entirely distinct, long, slender, pure white. Very early; much the earliest and finest long white. It is ready for use fully as early as Long Scarlet; short top, with less foliage, rendering it more desirable for forcing. In the open ground the roots continue brittle, crisp and mild, until they are fully as large as those of the Long Brightest Scarlet. It is ready for use following the olive-shaped Earliest White, and destined to become a leading variety. In recent years strains of White Wood's Frame and Chartiers have been introduced and found of poor quality, but the Icicle is, perhaps, superior to the finest red ones. Roots pure, snowy white, four inches in length and half an inch in diameter; they retain their crispness and

fresh, mild flavor until fully six inches long and an inch in diameter. Pkt., 5c; oz., 10c; ¼ lb., 25c; lb., 60c.

LONG WHITE VIENNA, OR LADY FINGER—The best long white radish grown; pure white, long, tender and sweet; a favorite also for its beauty of form and rapid growth. Pkt., 5c; oz., 10c; 2 oz., 15c; ¼ lb., 20c; lb., 60c.

WHITE STRASEBURG—One of the best of the large summer sort. It covers a long season, as it is good when quite small. The roots are long, very white, crisp and tender. Pkt., 5c; oz., 10c; 2 oz., 15c; ¼ lb., 20c; lb., 60c.

Winter Varieties

LONG BLACK SPANISH—Very hardy and good for winter use. If stored in sand will keep good all winter. The roots, which present a rusty, black appearance, are large, firm and not liable to become pithy. Pkt., 5c; oz.,

MAMMOTH CALIFORNIA, OR WHITE CHINA—Extensively grown by the Chinese, who introduced it into California. Very large and cylindrical, terminating abruptly with little tap root; mild and tender, and keeps well all winter. The skin and flesh are of a transparent white. Pkt., 5c; oz., 10c; 2 oz., 15c; ¼ lb., 20c; lb., 65c.

CHINA ROSE—One of the best fall and winter varieties. Half-long shape; upper part bright crimson, shading to white. Flesh white, firm, tender, and of superior quality. Pkt., 5c; oz., 10c; ¼ lb., 20c; lb., 65c.

SPINACH



CULTURE—It is one of the most easily managed of all vegetables, requiring but little culture. The main crop is sown in September, and it is sometimes covered with straw in exposed places during winter, which prevents it from being cut with frost.

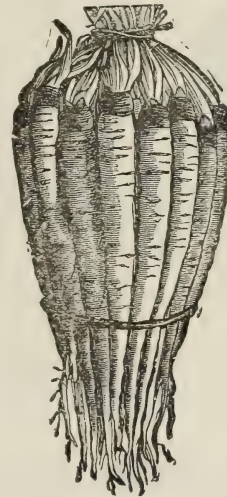
For summer use it may be sown at intervals of two or three weeks from March to August. Spinach is best developed, most tender and succulent when grown in rich soil. One ounce to 100 feet of drill; 10 to 12 pounds to an acre.

BLOOMSDALE—A very early variety. Is hardy and may be planted for early spring use. Pkt., 5c; oz., 10c; ¼ lb., 20c; lb., 40c.

LONG STANDING—An improved variety, slow going to seed, and perhaps the best for general use. Pkt., 5c; oz., 10c; ¼ lb., 20c; lb., 40c.

IMPROVED THICK LEAVED—A variety which grows very rapidly, forming a cluster of large, very thick, slightly savored leaves of fine color and quality when cooked. Best for market gardeners. Pkt., 5c; oz., 10c; ¼ lb., 20c; lb., 40c.

SALSIFY OR VEGETABLE OYSTER



The long white, tapering root of Salsify resembles a small parsnip, and when cooked is a good substitute for oysters, having a very similar flavor.

CULTURE—It succeeds best in a light, well enriched soil, which should be stirred to a good depth. Coarse and fresh manure should be avoided, as it will surely cause the roots to grow uneven and ill-shaped. Sow early and quite deep giving the general culture recommended for parsnips. The roots are perfectly hardy, and may remain out all winter, but should be dug early in the spring, as they deteriorate rapidly after growth commences. Store a quantity for winter use in a pit or in a cellar in damp earth or sand.

MAMMOTH SANDWICH ISLAND—This is in every way superior to the old sort, being larger, stronger growing and less liable to branch. Pkt., 5c; oz., 15c; ¼ lb., 40c; lb., \$1.35.

Squash

Summer Varieties

CULTURE—The plants are very tender and sensitive to cold, and planting must be delayed until settled warm weather. The general principles of culture are the same as those given for cucumbers and melons, but squash is less particular as to soil. The summer varieties should be planted four to six feet apart each way, and the winter sorts eight to ten. Three plants are sufficient to a hill. In gathering the winter sorts care should be taken not to bruise or break the stem from the squash, as the slightest injury will increase the liability to decay.

MAMMOTH SUMMER CROOK-NECK—An early, prolific kind, having a solid curved neck; the skin is yellow, thin, hard and very warty; flesh tender and of good quality. Twice as large as the ordinary Crookneck and several days earlier. Pkt., 5c; oz., 10c; ¼ lb., 25c; lb., 75c.



Summer Crookneck

EARLY YELLOW MAMMOTH BUSH SCALLOP—An early, flat, scallop-shaped variety; color yellow; flesh pale yellow and well flavored; very productive. Pkt., 5c; oz., 10c; ¼ lb., 25c; lb., 75c.

MAMMOTH WHITE BUSH SCALLOP—The best summer sort for the market; very productive and of good size. Pkt., 5c; oz., 10c; ¼ lb., 25c; lb., 75c.

ENGLISH VEGETABLE MARROW—A favorite English variety, bearing freely oblong, dull yellow fruits 10 to 15 inches in length by 4 to 5 inches in diameter; flesh, before ripe, tender, marrowy and delicious. Oz., 10c; ¼ lb., 25c; lb., 85c.

Autumn and Winter Varieties



GOLDEN HUBBARD—This is a very distinct sort of the shape and general character of the Hubbard, but a little smaller; earlier to mature, and of a rich, orange-red color, instead of the dark olive-green of the old Hubbard, while the flesh is a little deeper colored and fully as good quality. Pkt., 5c; oz., 15c; ¼ lb., 35c; lb., \$1.00.

CHICAGO WARTED HUBBARD—Is similar in size and quality to the Hubbard. The vines are vigorous and productive, while the large, dark olive-green fruits are rather more heavily warted. Very handsome in appearance; an excellent keeper and of splendid quality. Pkt., 5c; oz., 15c; ¼ lb., 35c; lb., \$1.00.

BOSTON MARROW—A good keeper, of excellent flavor; flesh orange colored and fine-grained. Pkt., 5c; oz., 10c; ¼ lb., 35c; lb., \$1.00.

MAMMOTH CHILI—The largest variety grown, having attained a weight of over 200 lbs.; round, flattened at the ends; rind deep orange; flesh deep yellow, thick and very nutritious; sometimes used for the table, but more desirable for stock feeding. Pkt., 5c; oz., 15c; ¼ lb., 35c; lb., 85c.

Tomatoes

CULTURE—Sow the seed in March and April in the hotbed or in spots in a sunny exposure in the house. If it is desired to make very healthy, stocky plants they may be transplanted or repotted when about two or three inches high. When five or six inches high, if the ground has become warm, transplant to the open ground, on a rainy or cloudy day, if possible; if not, the young plants should be liberally watered and shaded from the hot sun. If it is desirable to have the fruit ripen as early as possible, in preference to a heavy crop, select rather light, poor soil, and a sunny location. Trimming off the laterals, training to a stake, and propagating by slips are believed by many to promote earliness. Set the plants four feet apart each way, upon mounds of earth, to allow the foliage to open and let the sun in amongst the fruit. A cheap trellis, made by driving three stakes around the plants and encircling them with three or four barrel hoops, makes a very nice support for training them on.

SPARK'S EARLIANA—The earliest large and smooth tomato. The most perfect of all tomatoes. Of large, uniform size and beautiful red color. Quality almost beyond praise. A most vigorous grower and heavy bearer, continuing until frost. Succeeds everywhere and especially recommended for this section. The above claims may seem strong, but they have been abundantly proved by thousands of planters who have grown this grand tomato since its introduction three years ago. Spark's Earliana is as near seedless as any tomato, giving but 12 to 15 pounds of seed to the acre, while other varieties yield from 75 to 100 pounds to the acre. For this reason the genuine seed can never be sold at a low price. Pkt., 5c; oz., 30c; ¼ lb., 80c; lb., \$2.50.



LIVINGSTON'S CORELESS—A new bright red tomato of the globe-shaped type, almost round, being about the same diameter each way, making it a most profitable variety for canning. It is a strong grower and a heavy cropper, a grand slicing variety and ripens all over and through. Entirely free from hard green core. Pkt., 10c; oz., 50c.

DWARF CHAMPION, OR TREE TOMATO—The plant is dwarf and compact; fruit medium size, rich, glossy red, smooth and solid; fine for private gardens. Pkt., 5c; oz., 25c; ¼ lb., 75c; lb., \$2.50.

ESSEX EARLY HYBRID—Very similar to the Acme; fruit dark purple; always smooth and handsome; in quality it is classed with the best; will give satisfaction wherever the Acme does. Pkt., 5c; oz., 25c; ¼ lb., 75c.

NEW TOMATO—CHALK'S EARLY JEWEL—The large, handsome fruits are very solid and deep through, being almost round or ball shaped; will measure nearly three and a half inches across by nearly three inches in depth, from stem to blossom end. Color, brightest scarlet, ripening right up to the stem without any cracks or green core. The foliage is rather sparse and open, admitting the sunlight to the center of each plant, so that all the fruits are thoroughly ripened, but the leaves are dark green and not inclined to curl, as in most other first early varieties. Pkt., 5c; oz., 35c; ¼ lb., \$1.00.

ATLANTIC PRIZE (Extra Early)—A distinctly early variety, of good size and smooth surface. Many of the objections to the usual early kinds, such as undersize, deep corrugations and rough skin, are overcome in the Atlantic Prize. Pkt., 5c; oz., 25c; ¼ lb., 70c.

NEW STONE—Fine for main crop; very large; color bright scarlet; very smooth, ripening up to the stem without a crack; exceedingly solid and firm fleshed; an excellent shipper; quality the very best; not subject to rot. Superior for canning. Pkt., 5c; oz., 25c; ¼ lb., 75c.

PEACH—This is a distinct and very attractive tomato for preserving, eating from the hand or table. Fruit resembles a peach in shape, size and color, and is covered with a delicate bloom, which makes the resemblance more striking; flesh tender and of good flavor. Pkt., 5c; oz., 25c.

GROUND CHERRY, OR HUSK—Plants of low, spreading growth and immensely productive. The small yellow fruits are each enclosed in a husk or covering. When ripe the fruits are an inch in diameter, bright yellow and of very sweet flavor; highly esteemed for preserving or making pies. Pkt., 5c; oz., 25c.

YELLOW PEAR-SHAPED—A small-fruited variety, which is golden-yellow. It is very useful for salads when the fruit is simply cut in two lengthwise. Pkt., 5c; oz., 25c.

Turnips

For feeding stock in fall and winter there is nothing superior to turnips and rutabagas, as they are much liked by all kinds of stock and serve to keep them in good condition. We cannot too earnestly recommend farmers to increase their sowings largely, for we are sure the crop will prove remunerative.

CULTURE—For early, sow as soon as the ground can be worked, in drills 15 to 18 inches apart, and half an inch deep. Thin to six inches in the row. Turnips will grow on any soil that is moderately rich. An essential point is to make them grow quickly, otherwise they are apt to be tough and woody. They do best in light, loamy soil, that which has been manured for a previous crop is preferable to manuring with stable manure at time of sowing as in this case they are liable to be worm eaten, hence unsalable. Two pounds will plant an acre.

EARLY PURPLE TOP, STRAPPED LEAVED—One of the best and most universally grown; small, erect top, round, flat; purplish red above; white underneath; flesh firm, but very tender and sweet; it is soon ready for the table and keeps well. Pkt., 5c; oz., 10c; ¼ lb., 20c; lb., 50c.



EARLY FLAT WHITE DUTCH, STRAPPED LEAVED—A leading white-fleshed variety, and one of the best, either for family, market garden or field crop; it is of medium size and produces a large crop. The flesh is firm but tender, and of a superior rich, buttery flavor. A good keeper. Pkt., 5c; oz., 10c; ¼ lb., 20c; lb., 60c.

WHITE EGG—A quick growing, egg-shaped, perfectly smooth, pure white variety, with small top and rough leaves. It grows half out of the ground; the flesh is very sweet, firm and mild, never having the rank, strong taste of some of the early varieties. Pkt., 5c; oz., 10c; 2 oz., 15c; ¼ lb., 20c; lb., 60c.

EXTRA EARLY MILAN—The earliest turnip; tops are very small, distinctly strap leaved, and growing very erect and compact. Forms bulbs the earliest of any sort; the roots are very white. Pkt., 5c; oz., 10c; ¼ lb., 25c; lb., 75c.

POMERANIAN WHITE GOLBEE, STRAPPED LEAVED—This is a free growing, rough leaved sort, useful for both table and stock. It is not quite so rapid in growth as the flat varieties, may be expected to come in as a succession in autumn and is admirable for table use in early winter. Pkt., 5c; oz., 10c; ¼ lb., 20c; lb., 60c.

YELLOW ABERDEEN—Round, medium size, light yellow; stained with purple on top; produces a large crop; is hardy and keeps well; flesh very firm, but tender and

sweet. Pkt., 5c; oz., 10c; 2 oz., 15c; ¼ lb., 20c; lb., 50c.

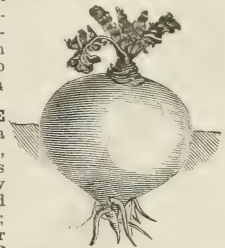
PURPLE-TOP WHITE GLOBE—A variety of the Purple-Top Flat Turnip, from which it originated. It is globular in form, of beautiful appearance and of most excellent quality. Equally desirable for table or stock. It keeps well and is a fine market sort. Pkt., 5c; oz., 10c; ¼ lb., 20c; lb., 50c.

COWHORN—Sometimes called Long White. Is slightly crooked, pure white, except a little shade of green at the top. Grows half out of the ground and is of very rapid growth; is delicate and well flavored. Has proved itself one of the best stock turnips ever introduced in the West, and is an immense yielder. Pkt., 5c; oz., 10c; ¼ lb., 20c; lb., 60c.

Ruta Bagas or Swedes

YELLOW SWEDE, OR RUTABAGA—Shape oblong, dull reddish color above ground, but yellow underneath; is harder than the common turnip and will keep till spring. Pkt., 5c; oz., 10c; ¼ lb., 20c; lb., 50c.

SWEET RUSSIAN, OR WHITE—The only white-fleshed rutabaga in general cultivation; is hardy, easily grown, large and yields as heavy a crop as the best yellow kinds; flesh fine-grained and solid, but tender and well flavored; good for stock and desirable for the table. Pkt., 5c; oz., 10c; 2 oz., 15c; ¼ lb., 20c; lb., 60c.



Yellow Rutabaga

TOBACCO

CONNECTICUT SEED LEAF—A largely cultivated sort in America. Large pkt., 5c.

HAVANA—A genuine Cuban strain. Pkt., 5c.

HERBS

ANISE—Used for cordials, garnishing and flavoring. Pkt., 5c; oz., 10c.

BALM—Leaves used for making pleasant beverages. Pkt., 5c; oz., 25c.

BASIL—Sweet; the leaves are used in flavoring soups, etc. Pkt., 5c; oz., 15c.

BORAGE—Leaves used for flavoring and the flowers furnish feed for bee pasturage; most easily grown in any waste place. Pkt., 5c; oz., 15c.

CARAWAY—Grown for seeds; used for flavoring. Pkt., 5c; oz., 15c.

CATNIP, OR CATMINT—Leaves and young shoots for seasoning. Pkt., 5c; oz., 35c.

DILL—Seeds have an aromatic odor and pungent taste. Pkt., 5c; oz., 10c; ¼ lb., 25c.

FENNEL—Sweet; ornamental; when boiled, used in fish sauce. Pkt., 5c.

CORIANDER—Seeds used in the manufacture of liquors, in confectionery and culinary preparations. Pkt., 5c; oz., 10c; ¼ lb., 25c.

HOREHOUND—For seasoning and cough remedy. Pkt., 5c; oz., 20c.

LAVERENDER—An aromatic, medicinal herb. Pkt., 5c; oz., 20c.

MARJORAM—Sweet; leaves and shoots for seasoning. Pkt., 5c; oz., 15c.

SAGE—Most useful herb for seasoning. Pkt., 5c; oz., 20c.

SUMMER SAVORY—Used for flavoring soups. Pkt., 5c; oz., 10c.

THYME—Leaves and young shoots used for seasoning; a tea is made from leaves, a remedy for headache. Pkt., 5c; oz., 30c.

TREE SEEDS

Single Pound Prices are by Mail, Postpaid.

PEACH PITS—For nursery stock. Lb., 20c; 100 lbs., \$3.50.

APPLE SEED—Oz., 10c; ¼ lb., 40c; lb., \$1.10.

CHERRY PITS (Mahaleb)—Oz., 10c; ¼ lb., 25c; lb., 85c.

PEAR SEED (Pyrus Communis)—The best imported for nursery stocks. Oz., 15c; ¼ lb., 45c; lb., \$1.50.

QUINCE SEED—Oz., 20c; ¼ lb., 50c; lb., \$2.00.

LOCUST, HONEY—Oz., 10c; ¼ lb., 20c; lb., 60c.

VEGETABLE PLANTS AND ROOTS

We grow large quantities of vegetable plants, and can supply all of the varieties listed below, in their proper season, in most any quantity. We have made arrangements this year so we can supply all vegetable plants in two grades—plants direct from the seed beds and those that have been transplanted into shallow boxes.

TRANSPLANTED PLANTS are much stronger and better rooted and are well worth the price, especially in the early part of the season. We can supply most of the leading sorts.

ASPARAGUS ROOTS—

	Postpaid, Express		
	Doz.	100	1000
1 year old	\$0.25	\$0.75	\$5.00
2 year old .....	.40	1.00	7.00

CABBAGE PLANTS—

	Express		
	Doz.	100	1000
Early Jersey Wakefield, transplanted	\$0.20	\$0.75	\$5.00
Early Jersey Wakefield, not transplanted .....	.15	.50	3.50
Danish Ballhead .....	.15	.50	3.00
Cauliflower, Snowball .....	.25	1.00	5.00

CELERY—

Early White Plume, transplanted.....	\$0.25	\$1.00	\$6.00
Early White Plume Seedling.....	.20	.75	4.50
Golden Self-Blanching, transplanted .....	.25	1.00	6.00
Golden Self-Blanching Seedling.....	.20	.75	4.50
Late varieties, Seedlings.....	.15	.75	4.00

PEPPERS—

Ruby King or Bull Nose.....	.25	.75	5.00
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TOMATOES—

Earliana, transplanted30	1.00	7.00
Dwarf Champion, transplanted.....	.30	1.00	7.00
Dwarf Champion, not transplanted..	.20	.50	3.00

EGG PLANT .....	.25	1.00	.....
TOBACCO .....	.30	1.00	.....
CHIVES	Bunch	.10	.75
PARSLEY .....	.20	.75	.....
SAGE .....	.30	1.00	.....
HOP ROOTS .....	.55	2.00	.....
MINT ROOTS .....	.55	2.00	.....
HORSE RADISH SETS.....	.25	1.00	.....

RHUBARB ROOTS

It is too expensive to send only the very smallest roots by mail so we list same only by express or freight:

	Doz.	100
1 year old	\$0.75	\$3.50
2 year old	1.00	6.00

STRAWBERRY PLANTS

HOOD RIVER—The leading standard shipping variety. The berry that has made the town of its name famous, and its growers financially rich. Dark red color, uniform size, good quality but not heavy in yield. A specialty berry for the grower whose market is somewhat distant.

GLEN MARY—A bright, handsome, prolific standard sort, grown the country over and perfectly reliable. Some large growers claim for this the par excellence in strawberries.

SENATOR DUNLAP—Its color is a rich dark red with glossy finish. It has become a very popular variety, perhaps on account of its uniformity.

WARFIELD—The most popular pistillate variety grown. It is a large, beautiful cone-shaped berry with a fadeless, dark red exterior; the deep red color is extended clear to the center of the fruit. Exceptionally fine for canning and attractive in the box. Any variety that we offer will fertilize it except Gandy, Aroma and Marie.

MAGOON—Of first quality, great productiveness, attractive shape and color; good for canning.

WM. BELT—Nothing better for quality, shape and attractiveness. A reliable and trustworthy variety; ripens evenly; prolific and will meet the expectations of the most fastidious.

GANDY—A variety that has not yet today found its equal as a truly reliable and all-round late producing berry. For 20 years since its introduction it has remained at the head of the list in its season although many varieties have been introduced claiming superiority, and, while some of them may equal, the majority are found to be wanting. The plant is a rampant grower, having strong fruit stems, holding the heavy weight of the fruit erect; slow in forming and thereby ripening its fruit and in the height of its glory when the early and midseason varieties are about done fruiting.

AROMA—A late variety and among the best of the late ripening varieties. In comparison with the Gandy, it will be found that it commences to ripen a little earlier and will continue to the end of Gandy's season and is similar to it in size and productiveness. It is planted extensively both North and South. Quality the best of any, comes nearer being the true strawberry flavor than all others. It is the best for eating from the vines, with cream, shortcake, preserved or canned. Its shipping qualities are of the best.

PRICES

	Postpaid, Express		
	Doz.	100	1000
MAGOON (S), medium early.....	\$0.30	\$0.85	\$5.00
HOOD RIVER (S), early.....	.30	.85	5.00
GLEN MARY (S), medium early.....	.30	.85	5.00
WM. BELT (S), medium early.....	.30	.85	5.00
GANDY (S), very late.....	.30	.85	5.00
AROMA (S), late.....	.35	1.00	6.00
WARFIELD (P), medium early.....	.35	1.00	6.00
SENATOR DUNLAP (S), med. early	.30	.85	5.00

We also handle Pansy, Aster and other Flower Plants.

SEED POTATOES

We aim to carry all of the standard varieties Early Rose, Early Ohio, Sunlight, Burbanks, Carmens, etc. Write for prices, stating quantity wanted.

FLOWER SEEDS

There are no more satisfactory flowers than those grown from seed, especially the easily grown and brilliant flowered annuals. The beautiful shrubs and lilies, of course, have their place, but are far more expensive than a paper of seed which will furnish a large number of plants with usually enough for one's garden and some to spare.

Aim to have your garden one artistic unit, with some flowers in bloom at all seasons, with colors which harmonize, and with plants in size, grafting from the dwarf borders, to the bedding annuals, and then to the taller plants which usually should stand next to the house or other confines of the garden or lawn. A garden carefully thought out and planted gives very much more pleasure than a haphazard one.

A common mistake in sowing flower, as well as other seeds, is covering too deep. As a general rule, cover only to the depth of the thickness of the seeds; or, with medium sized seeds, like Balsams, Zinnias, etc., half an inch or less is the proper depth. Such fine seeds as Portulacas, Nicotiana, etc., need only to be pressed into the soil with a piece of board or the palm of the hand. Always press the earth down firmly after sowing all flower seeds, else there is danger of their drying up before the roots can get firm hold of the soil. Seeds of the hardier annuals may be sown where they are to grow; but, as a rule, it is preferable to transplant, as the plants are generally stronger and stand the drought better. During very dry weather, and when the seedlings are first set out, they should be watered frequently. Provide some support for all such annuals as require it.

With a little study of the garden and the colors and habits of the flowers, a beautiful garden can be had from the use of flower seeds at very little cost.



Asters

A popular half-hardy annual produced in a great variety of classes and an almost endless number of colors. The tallest varieties grow about two feet high, and some varieties of dwarfs are not over three inches high. The

best method of culture is to sow the seed in boxes about January 1st, and transplant about April 1st to 15th. The seed can be sown, however, in the row where the plants are to remain thinning them from six to twelve inches apart, according to variety.

HOHENZOLLERN ASTER—The finest type of the Giant Comet, or Ostrich Feather type of Asters. Much larger than the Giant comet, the petals longer and more curled and twisted, and produced in greater abundance. Borne on long stems, which makes them cut flowers par excellence. We have them in separate colors—white, pink, blue, lavender, rose and mixed. Price, per packet, 10c; ¼ oz., 75c.

NEW "CREGO GIANT" ASTER—The "Giant Crego" is distinct in every way, and its magnificent flowers, often 6 inches in diameter, are fully equal to Chrysanthemums. They have rare beauty of form and brilliant coloring, are very vigorous, and free flowering; blooms are borne on long stems. White, Shell Pink, Rose, pkt., 15c; ½ oz., \$1.00.

TRUFFAUT'S PAEONY FLOWERED PERFECTION—This variety has the most brilliant and showy assortment of colors. Flowers, medium sized and almost globular. Plant about sixteen inches high, of upright growth, and flowers all borne on top. Best colors. Mixture of all colors, pkt., 10c; ¼ oz., 60c.

GIANT COMET, OR OSTRICH PLUME—Are thrifty growers, 15 inches high, bearing immense long-stemmed flowers, composed of long, wavy petals, like Japanese Chrysanthemums. Giant Comet, mixed colors, pkt., 5c; ¼ oz., 50c.

ARABIS, OR ROCK CRESS—The earliest, prettiest, spring flower. The spreading tufts are covered with a sheet of pure white flowers as soon as the snow disappears. Unequaled for rockeries or edgings; withstands the drought and is always neat. Pkt., 10c; ¼ oz., 30c.

AGERATUM—A plant that blossoms continuously all summer in the garden and makes a pleasing contrast of color with more brilliant varieties. Pkt., 5c; ¼ oz., 15c.

ALYSSUM (SWEET)—A very pretty plant for beds, vases, baskets, edgings or rock work. Sweet scented and blooms profusely all summer. Pkt., 5c; oz., 25c.

If you want some fine Asters, order Hohenzollern.

BALSAM—Unrivalled for the great variety of color and size of flower; includes all of the most desirable shades and colors; no finer mixture can be obtained. Pkt., 10c.

BACHELOR'S BUTTON, OR CENTAUREA CYANUS—A hardy annual, easily cultivated. Has recently been greatly improved, and now produces handsome flowers of a great variety of rich colors. Borne on tall, branching stems, with but little foliage. Striking and handsome. Pkt., 5c; oz., 25c.

BALLOON VINE (LOVE-IN-A-PUFF)—A rapid growing annual climber; succeeds best in light soil and warm situation; flowers white; seed vessels look like miniature balloons. Pkt., 5c.

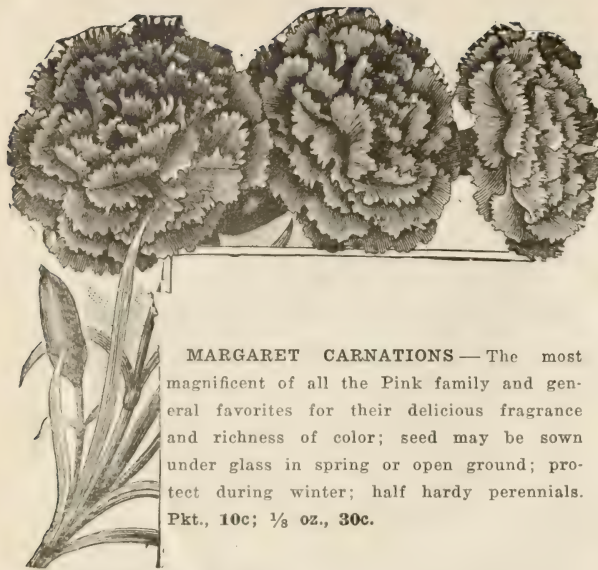
BEGONIAS—Begonias are among the most beautiful of flowering plants, especially adapted to pot culture. Mixed, pkt., 20c.

CANARY BIRD VINE—A beautiful climber; flowers a bright golden yellow, bearing a fanciful resemblance to birds with expanded wings. Pkt., 5c; ¼ oz., 15c.

CANDYTUFT—Mixed, many fine shades. Pkt., 5c; oz., 20c.

CANNA—Ornamental, tropical looking plants of easy culture; large and beautiful flowers. Hardy perennial. For Canna Bulbs, see Plant Department.

CROZY'S NEW DWARF FLOWERING MIXED—Pkt., 10c; oz., 35c.



MARGARET CARNATIONS—The most magnificent of all the Pink family and general favorites for their delicious fragrance and richness of color; seed may be sown under glass in spring or open ground; protect during winter; half hardy perennials. Pkt., 10c; $\frac{1}{8}$ oz., 30c.

CALENDULA (POT MARIGOLD)—Very hardy annual, one foot high, blooming freely practically the whole year round. Is of the easiest culture and is desirable for rather inferior soils, where less sturdy flowers do not thrive. A medicinal extract resembling arnica is made from the flowers. Pkt., 5c; oz., 20c.

CENTAUREA IMPERIALIS (ROYAL SWEET SULTAN)—The finest of all Sweet Sultans; the plants are very strong and bear giant flowers on stiff, long stems; excellent for cutting and lasting, when cut, unusually well. Mixed, pkt., 10c; $\frac{1}{2}$ oz., 50c.

COREOPSIS (LANCEOLATA)—A perennial, blooming the first year; flowers rich yellow, single; very fine for cutting. Pkt., 10c; $\frac{1}{4}$ oz., 40c.

Cosmos



COSMOS—A strong grower, having elegant foliage, and for fall blooming has no superior. Seed grown in March or April and transplanted to open ground will produce plants three to five feet high by September, which thereafter, until November, will yield hundreds of blossoms three inches across; various shades. Pkt., 5c.

CHRYSANTHEMUM—The Annual Chrysanthemums are rapidly coming to the front, both as greenhouse and garden plants; they should not, however, be confounded with

the Japanese perennial kinds that are being so widely introduced; the annuals have recently been greatly improved. Pkts., 5c and 10c.

COLUMBINE, OR AQUILEGIA—Commonly known as Honeysuckle. Produces handsome flowers of unique form and many attractive and bright colors. Hardy perennial mixed. Best double or single varieties. Pkt., 5c.

CELOSIA (COXCOMB)—Free blooming annuals, growing best in light soil not too rich. They make splendid border plants and are attractive for pots. Mixed. Pkt., 10c.

COBAE SCANDENS—One of the handsomest and most rapid growing of the annual climbers. It climbs thirty feet in a season. The flowers are bell shape and of a purplish lilac color. Very prolific and perfectly hardy. The vine is always clean of insects. Mixed. Pkt., 10c; $\frac{1}{4}$ oz., 20c.



CAMPANULA, OR CANTERBURY BELLS—Very ornamental garden plants of the easiest culture; hardy biennial, two and a half feet high, producing large, nodding and charming bell-shaped flowers of many exquisite shades. Pkt., 5c; $\frac{1}{4}$ oz., 50c.

CYPRESS VINE, OR IPOMOEA QUAMOCLIT—A climber of rapid growth, having handsome, fernlike foliage and a profusion of bright, attractive flowers. Mixed. Pkt., 5c; $\frac{1}{4}$ oz., 15c.

BICINUS, OR CASTOR OIL BEAN—Ornamental plants of steady growth and picturesque foliage with brilliant colored fruit, producing a sub-tropical effect; fine for lawns, massing or center plants for beds. Pkt., 5c; oz., 20c.

DAHLIA—A magnificent, fall-blooming tuberous-rooted plant, which can be readily started from seed. For Dahlia Roots, see Plant Department. Double mixed, pkt., 10c; single mixed, pkt., 10c.

DAHLIA CACTUS—New; flowers odd and fantastic in shape; all colors. Fine mixed, pkt., 10c.

DAISIES (Bellis Perennis)—Very popular and easily grown flower; may be sown in the open ground early in May. Pkt., 10c; $\frac{1}{8}$ oz., 50c.

SHASTA DAISY—A most remarkable new flower, originated by Luther Burbank, of California; bears flowers of the snowiest white, with yellow centers; blooms the first season and should be sown in boxes early and transplanted. Pkt., 15c.

DIANTHUS (Chinese Pink)—Mixed; many distinct and beautifully marked varieties. Pkt., 5c; $\frac{1}{4}$ oz., 25c.

ESCHSCHOLTZIA (California Poppy)—The State Flower of California; an annual of rich, rare tints of yellow and orange. About a foot in height, beautiful foliage and large, poppy-like flowers. Pkt., 5c; $\frac{1}{4}$ oz., 20c.

FOUR O'CLOCK (Mirabilis)—Is also called Marvel of Peru. A handsome, free-flowering, sweet-scented plant. They open their blossoms about four o'clock in the afternoon, hence their name. Hardy annuals. Choice mixed varieties. Pkt., 5c; oz., 15c.

FORGET-ME-NOT (Myosotis)—A modest little flower, to friendship ever dear. (See also Flowering Plants.) A pretty trailer with blue flowers. Pkt., 10c.

GERANIUM—Comparatively few are aware that Geraniums may be grown easily from seed and flower the first season if sown early. This is the best way to secure Geraniums, as they will frequently reward the cultivator with charming new varieties. In fact, propagation by seed is the only way to obtain new varieties. Pkt., 15c.

GODETIA—An attractive, hardy annual deserving more extensive cultivation. The plants bloom profusely and bear showy flowers of rich and varied colors, one and one-half inches. All colors, mixed. Pkt., 5c.

GOURDS (ORNAMENTAL)—Rapid growing, interesting annual climbers with handsome foliage and singular shaped fruit. Mixed varieties. Pkt., 10c; oz., 20c.

GYPSOPHILA, OR BABY'S BREATH—A pretty, free-flowering plant. Fine for bouquets. Pkt., 5c.

HOLLYHOCKS—These fine, old-fashioned perennials are most striking when planted in groups or long rows; their variety of color is wonderful. When plants are once obtained they last for several seasons. Mixed colors. Pkt., 10c.

HELIOTROPE—Every one loves the delightful fragrance and beauty of the Heliotrope, but few know that it can be raised from seed as easily as the Verbena. To insure a long period of bloom seed should be sown early indoors. Per pkt., 10c.



Heliotrope

LOBELIA—A very valuable and beautiful dwarf-growing plant, delicate drooping habit and profusion of charming little blue and white flowers. Choicest mixed. Pkt., 10c.

LARKSPUR—One of the most showy and useful plants, making useful border flowers. Pkt., 5c; oz., 20c.

MOON FLOWER, OR IPOMEA, MEXICANA GRANDIFLORA—Rapid growing climber, belonging to the Morning Glory family. The flowers are large, waxy white and very showy. Pkt., 10c; ¼ oz., 20c.

MORNING GLORY—New Japanese; the surpassing charm in this grand variety lies in the entrancing beauty and gigantic size of the flowers. Pkt., 10c; oz., 20c.

MORNING GLORY—Tall, fine mixed; a great variety of colors of the popular old-fashioned sorts. Pkt., 5c.

MIMULUS—Moschatus, or Musk Plant. Cultivated for its rich musk odor. Should have a rich soil and ample moisture. Hardy and perennial. Pkt., 10c.

MARIGOLD—Well known, extremely showy garden plant, with handsome double yellow and brown flowers of varied shades; succeeds in good garden soil. Annual. Pkt., 5c; oz., 35c.



Mignonette

MIGNONETTE, RESEDA—A well-known fragrant favorite, and no garden is complete without a bed of Mignonette. Sowings are made in April and again in July, will keep up a succession from early summer until frost. Pkt., 5c; oz., 25c.

NASTURTIUM, TALL OR CLIMBING—A very well-known ornamental, profuse flowering plant, adapted for rock work. The seeds, if picked young, are an excellent substitute for capers. Pkt., 5c; oz., 10c; ¼ lb., 25c.

NASTURTIUM, TOM THUMB OR DWARF—When planted in beds or masses the brilliant effect of these splendid flowers is scarcely surpassed by any of our finest bedding plants. Pkt., 5c; oz., 10c.

NIGELIA—LOVE IN A MIST, OR DEVIL IN THE BUSH—DAMASCENA—A compact, free-flowering plant, with finely cut foliage, curious-looking flowers and seed pods; of easy culture, growing in any garden soil; hardy annuals; blue and white mixed. One foot. Pkt., 5c.

NICOTIANA—AFFINIS (Tuberoso-Flowered Tobacco)—Delightfully sweet-scented, pure white tubular flowers, blooming continually; annuals; two to three feet high. Pkt., 10c.

PORTULACA, OR ROSE MOSS—Brilliant, dwarf annuals, only six inches high, luxuriating in warm situations and blooming profusely from early summer to autumn. For low beds and masses of color, from spring until frost, they are indispensable; colors range through innumerable shades of red, yellow, pink, striped, white, etc. Mixed. Pkt., 5c; ¼ oz., 20c.

PRIMROSE—CHINESE—The culture of these lovely flowers is much easier than most people think. Our mixture includes not only all the choicest colors of the single-flowering Primulas in all their dainty shades, but it comprises also seed saved from hybridized flowers, and will produce a number of double flowers and the new blue Primula. Pkt., 10c.

PETUNIA—For outdoor decoration or house culture few plants are equal to this class. They commence to bloom early and continue to flower through the summer. Give them a rich soil and sunny place. Choice mixed. Pkt., 5c.

SHIRLEY POPPY—The range of color, extending from white through the delicate shades of pink, rose and carmine to deepest crimson; fine for cutting. The best single mixed. Pkt., 10c; ¼ oz., 25c.

DOUBLE POPPY—Fringed; colors are dazzling. Mixed. Pkt., 5c; oz., 25c.

ICELAND POPPY—These are of a very graceful, neat habits, with bright green, fern-like foliage, formed in tufts, from which issue slender stalks about twelve inches in height, bearing yellow, white or orange-scarlet flowers in endless profusion and most useful for cutting; hardy perennial. (See cut.) Mixed colors. Pkt., 10c; ¼ oz., 40c.



PHLOX DRUMMONDII—Of all summer-flowering annuals the varieties of Phlox Drummondii are unquestionably one of the most brilliant and satisfactory. Seed may be sown in the open ground any time after danger from frost is past, and in a few weeks the beds or borders are aglow with their brilliant coloring and remain so until cut down by frost. For early flowering they should be started indoors or in a hotbed. Mixed colors. Pkt., 5c; ¼ oz., 50c.

Pansies

PANSY (*Viola Aricolor*)—A half-hardy perennial, growing four to six inches high and probably the best known and among the most popular flowers in cultivation. It thrives best in a moist, shady location, and in rich, loamy soil. Seed should be sown in the autumn for early spring blossoms, or can be sown early in the year for good flowers later in the spring.

Steele's Mastodon Pansies

For years the Steele Pansy Gardens have grown our Giant Pansies. These have been carefully reselected and bred up to their present surpassing excellence, and for giant size, substance, form and coloring we have never seen Pansies to compare with them. Named varieties and special strains are grown separately and the seed collected by hand and carefully blended into what we believe to be the finest mixture ever offered. Price, per pkt., 25c.



Salpiglossis (Velvet Flower)

SALPIGLOSSIS—The quaint, funnel-shaped flowers somewhat resemble those of the Petunia; beautiful range of colors. Pkt., 5c; ¼ oz., 25c.

LARGE FLOWERING, 10-WEEK STOCK—This is the leading class for bedding out or summer-blooming. All varieties, mixed. Pkt., 10c; ¼ oz., 50c.

SWEET WILLIAM—A well-known, attractive, free-flowering, hardy perennial, producing a splendid effect in beds and borders with rich and varied flowers. The demand for separate colors has induced us this season to offer several of the best and most distinct flowering sorts. Mixed. Pkt., 5c; oz., 20c.

WILD FLOWER GARDEN MIXTURE—A garden is not complete without a bed of this mixture of flowering annuals. A package will sow a bed about two by ten feet, and if sown early in the spring will furnish continual bloom throughout the season. Pkt., 10c; oz., 50c.

THUNBERGI—Rapid growing annual climbers; splendid for trailing over trellises, fences, etc.; beautiful flowers borne in profusion; buff, white, orange, etc.; four to six feet high. Mixed colors. Pkt., 5c; ¼ oz., 25c.

VERBENA—Very few annuals will make such a gorgeous display during the summer months or furnish more flowers for cutting, than the Verbenas. Start seed in the house or under glass early in the spring and transplant after three or four inches of growth. They flower in July and continue strong and healthy until destroyed by frost. Fine mixed. Mixed, pkt., 5c; ¼ oz., 20c.



FANCY GIANT, MIXED—A splendid mixture of various shades and markings. The blossoms are perfectly round and are blotched at the base of three to five of the petals. Pkt., 10c.

FINE MIXED—A fine assortment of colors. Pkt., 5c.

Scabiosa

SWEET SCABIOUS, OR MOURNING BRIDE—Free-flowering annuals; colors, white, carmine, lilac, maroon, etc. Very effective for garden decoration and valuable for cutting. Dwarf or tall double mixed. Pkt., 5c; ¼ oz., 15c.

SALVIA, OR FLOWERING SAGE—A tender perennial blooming the first season from seed and growing two to three feet high. The blossoms are borne on long stems in racemes or spikes, and are fragrant. The plant forms a bunch and blooms profusely during the whole summer and fall. Fine mixed. Pkt., 10c.

Smilax

SMILAX (BOSTON IVY)—Charming, tender, perennial climber for greenhouse or window gardens. The foliage and stems are of a pleasing light green; very graceful; excellent for decoration. Pkt., 10c; ¼ oz., 25c.

SCARLET RUNNER—Ornamental and useful; the vine is graceful; flowers are of a brilliant scarlet and the beans are of an excellent quality, either when shelled or in a dry state. Pkt., 5c; lb., 25c.

SNAPDRAGON, OR ANTIRRHINUM—One of the most useful and showy of border plants. Of almost every color, and striped as beautifully as Carnations. They have recently been much improved and are now really magnificent. Hardy perennial. Finest mixed. Pkt., 5c.



Violets

VIOLETS—*Viola Odorata* is the well known English Violet, a free-flowering, hardy perennial. Easily grown from seed, though somewhat slow in germinating; succeeds best in partially shaded moist places. Choice mixed. Pkt., 10c.

WALL FLOWER (Cheiranthus Cheri)—Produces spikes of beautiful, exceedingly fragrant flowers. Half-hardy perennial. Mixed. Single, large flowering. Pkt., 5c.

WILD CUCUMBER—A well-known vine, common in many sections, and the quickest climber known for covering verandas, old trees and houses, trellises, etc., never suffering from the heat, but retaining its fresh lively green color; never infested with insects and very profuse in bloom. It will sow itself and come up in the same place. Pkt., 5c; oz., 20c.



ZINNIAS (Youth and Old Age)—Is one of the most brilliant and showy annuals, and has long been a general favorite. The seed can be sown early in the hotbed and transplanted, or sown later in the open ground. They come in flower early in the summer, and keep on blooming until hard frost. Choice mixed. Pkt., 5c

Sweet Peas

Through the skill of specialists the Sweet Pea has become a much larger and lovelier flower than before it became so popular. The plants are more robust, dwarf, branching, and bloom earlier and more freely, some varieties showing three to four blooms on a stem. Many new colors, deep, dark, brilliant, and delicately lovely, have appeared in the blossoms, often in indescribable combinations. There are flowers, too, of quite distinct shapes, some of which are a great improvement upon the Sweet Pea of the old type. Our present list contains some of the best kinds introduced to date.



CULTURE—Early in the spring make a trench about four inches deep in rich, mellow soil, so arranged that no water can stand in it, and plant the seed in the bottom, covering no more than two inches. Sweet Peas, particularly the white seeded sorts, are often a little difficult to start. If the soil is too dry they will remain a long time without germinating; if it is too wet and cold they will not sprout at all. In soils at all heavy or composed largely of clay, put about one inch of sand in the bottom of the trench and sow the seed on this, covering with more sand. Cover the row with a board to shed the rain and protect the soil from the hot sun, but remove this as soon as the young plants appear. When the plants are about five inches high gradually fill up the trench and furnish some support for the vines to run upon. The blooms should be picked before they form pods or the plants will soon stop flowering.

Spencer Varieties

The new "Spencer" type has lovely waved and fluted flowers of gigantic size, and, in exquisite coloring, length

of stem and lasting qualities, are much superior to the older types. "Spencers", however, are very shy seeders and require much careful selection to develop fixed types. The seed is therefore scarce and cannot be cheaply produced.

KING EDWARD VII SPENCER—The standard is a deep, rich carmine scarlet of glossy effect. The wings are also carmine scarlet, and on the reverse side are also a deep rose carmine. Pkt., 10c; oz., 20c; ¼ lb., 50c.

FLORENCE MORSE SPENCER—Delicate blush with pink margin. Very large open wavy form of the best Countess Spencer type, with long stems and four blossoms to the stem. Perhaps better described as a light pink-edged Countess Spencer. Pkt., 10c; oz., 20c; ¼ lb., 50c.

PRINCESS ALICE SPENCER—Light rosy mauve of Spencer form. Pkt., 10c; oz., 20c; ¼ lb., 50c.

PRINCESS VICTORIA—White blush and pink-edged Spencer. Pkt., 10c; oz., 20c; ¼ lb., 50c.

QUEEN VICTORIA SPENCER—The flowers are extremely large, of the true waved Spencer type, and have a most pleasing color effect. The background is quite a deep primrose flushed with rose. The flowers are all of good substance, borne three and four on a stem. Pkt., 10c; oz., 20c; ¼ lb., 50c.

WHITE SPENCER—Flowers absolutely pure white. Standard is waved, crinkled and fluted; three to four blossoms to a stem. Stems 12 to 15 inches in length. Pkt., 10c; oz., 20c; ¼ lb., 50c.

MRS. CHARLES MANDER, OR ROYAL PURPLE SPENCER—A distinct new type; color rosy-lavender. Pkt., 10c; oz., 20c; ¼ lb., 50c.

MRS. HARDCASTLE SYKES, OR PALE PINK SPENCER—Flowers of purest pale pink. Pkt., 10c; oz., 20c; ¼ lb., 50c.

PRINCE OLAF—The bold effective flowers are striped and mottled bright blue on white ground; of good size, with erect expanded standard; the flowers are borne frequently four to the stem. It is a very profuse bloomer. Pkt., 10c; oz., 20c; ¼ lb., 50c.

IVY MILLER—It is a bluish white, with a little more color on the back of the standard and it is Picotee edged variety, having a distinct edge of darker color around the standard and wings. Price, pkt., 10c; oz., 20c; ¼ lb., 50c.

Select list of fine Flowering Sweet Peas, the best of their color and type.

PRICES: 5c per pkt.; 10c per oz.; 20c per ¼ lb.; 60c per lb., postpaid.

Light Pink

STELLA MORSE—Flowers of a peculiar warm salmon-pink. A combination yellow and pink which is distinct and very attractive.

LOVELY—The most beautiful shades of soft shell-pink, changing to very light rose at the outer edges. Grand flowers of large size.

MISS WILMOTT—Described as an "orange-pink" delicately shaded rose. Enormous flowers, borne erect on long, stiff stems.

PRIMA DONNA—A most beautiful bright shade of blush-pink. Flowers of large size and finest form.

Cream or Light Yellow

HON. MRS. E. KENYON—Rich, primrose. A bold, giant flower. The best in this shade.

Purple and Maroon

BLACK NIGHT—One of the darkest varieties.

COUNTESS CADOGAN—Large flowers. The color effect is that of a bright blue.

OTHELLO—A deep maroon self-color; very large.

Striped and Variegated

SENATOR.

PRINCE OF WALES.

Lavender and Blue

NAVY BLUE—A true blue.

COUNTESS OF RADNOR—Self-colored in a very distinct and beautiful shade of lavender.

SWEET PEAS—Continued

Orange and Salmon

HENRY ECKFORD—A distinct orange scarlet of the finest form and largest size; as beautiful under artificial light as in daylight.

Red Standards, White Wing

BLANCHE FERRY—Bright pink standard and nearly white wings.

Shades of Red

KING EDWARD VII—A lovely, intense crimson. A truly giant-flowering variety. The finest crimson to date. Strong stems and growth.

MAJESTIC—Fiery carmine, wings rose-madder.

PRINCE OF WALES—Rose pink.

White

BLANCHE BURPEE—A splendid pure white variety. While not so profuse a bloomer or as hardy a plant as the Emily Henderson the flowers are fine.

EMILY HENDERSON—A bold, well formed, clear white flower. Wings broad and well expanded. An early and wonderfully free and persistent bloomer.

Cream of Sweet Peas, Mixed

Postpaid: Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 60c.

Hardy Climbing Vines

VIRGINIA CREEPER—Has large, luxuriant foliage, which in autumn assumes the most gorgeous and magnificent color; one of the finest vines for covering trellises, or verandas. Each, 50c postpaid.

CLEMATIS JACKMANNI—This variety, strong growth, hardy nature and rich, deep velvety-purple flowers, is the most satisfactory of its class. Blooms with astonishing profusion. Price, 75c postpaid.

CLEMATIS PANACULATA—A splendid white flowered sort; very fragrant. Price, 50c postpaid.

HONEYSUCKLE—Grows vigorously, with yellowish white, fragrant flowers. Price, 50c postpaid.

HOPS—Are the most rapid growers of any vine coming from the roots each spring. Their rapid growth and large broad leaves cover a porch before the arrival of the hot days of summer. 60c per doz., postpaid.

CINNAMON VINE—This climber is appropriately called Cinnamon Vine. Very hardy, the stem dying down every autumn, but growing again so rapidly as to cover completely any trellis or arbor early in the season. With its beautiful heart-shaped leaves and clusters of delicate white flowers, and most delicious cinnamon odor, is a most desirable climber. 5c each, 50c per doz., postpaid.

MADEIRA VINE—A beautiful rapid climber, bearing graceful racemes of fragrant white flowers; very pretty and useful. 5c each, 50c per doz., postpaid.

Bulbs

Dahlias

The Dahlia is one of the most popular summer and fall flowering bulbs, and is a general favorite, and should have a place in every garden. The flowers are very showy and gorgeous. The varieties listed by us are exceptionally fine, each one being a gem in itself.

Standard Dahlias

CRIMSON GIANT—Deep crimson flowers of immense size.

HENRY PATRICK—A pure waxy white. It blooms very freely, producing flowers from 5 to 7 inches in diameter.

MRS. ROOSEVELT—A most delicate pink flower, immense in size, graceful in form and having excellent stems for cutting. Perfectly double, 6 to 8 inches in diameter.

PRES. F. FAURE—A deep purplish crimson with broad thick petals.

SYLVIA—White shading to soft pink on the outer petals which are of great substance. The flowers measure about 5 inches, are fine in form and full to the center making it a great shipper. The plant is a strong and healthy grower.

WM. AGNEW—The richest shade of intense, dazzling red. Flowers are large, measuring more than 5 inches in diameter.

YELLOW COLOSSE—A clear yellow exhibition variety. The flowers are very perfect and on long stems.

Price—Each, 25c; entire six, \$1.25 postpaid.



Cactus Dahlias

The Cactus forms of Dahlias are exceedingly beautiful, and are hard to excel. They have long twisted petals and embrace nearly all the colors and shades to be found in any of the other types.

Standard Sorts

BURBANK—Deep clear dark red. An excellent bloomer which never under any circumstances shows the least tendency toward an open center, no matter how dry the weather or poor the soil.

WINSOME—Undoubtedly the finest white Cactus to date. Flowers are very large and beautiful, with twisted, incurved petals and are borne on long, erect stems, holding the flower up in marked contrast to other white Cactus Dahlias.

INNOVATION—The finest bi-colored Cactus Dahlia. The center is of a deep scarlet, the extremities of the petals are white.

DAHLIA—Continued

KATHERINE DUER—The most beautiful glowing scarlet without markings. The flowers are of immense size, 7 inches across, opening out flat and showing no center, with wide and rounding petals. The plant is a strong grower. Height 5 feet.

KRIEMHILDE—An exquisite shell-pink shading to white in the center. Undoubtedly the finest and most perfect pink Cactus Dahlia to date, and as a cut flower supersedes all the other pink sorts.

Price—Each, 25c; entire six, \$1.25 postpaid.

Novelties in Dahlias

AURORA CACTUS—An attractive soft pink, slightly tipped white, brilliant golden in the heart. One of the best Dahlias for exhibition, being colossal in size, elegant in form, most perfect in type and of the most exquisite coloring.

OTHELLO CACTUS—Dark blood red with a velvety black sheen. An early and free bloomer with stalks long and strong, carrying flowers well above the foliage.

JEANNE CHARMET (Peony Flowered)—Bright pink with crimson edges. Flower 7 to 8 inches in diameter with long, wide, loosely formed petals. Center covered with short petals. Flowers borne on fine long stems. Early and extra fine.

BIG CHIEF (Peony Flowered)—Brilliant cherry-red, margined rich velvety maroon. A strong vigorous grower, producing its immense semi-double flowers, 6 to 7 inches across, on 2-foot stems, in greatest profusion.

Price—Each, 75c; four, \$2.50 postpaid.

Gladioli

Gladioli are the most satisfactory, desirable and popular of all the garden bulbs. Nothing else of the kind cost so little, grows and blooms so readily in any soil or climate as Gladioli. They thrive and bloom with the least care and attention, and make a display which for brilliancy and beauty of coloring few bulbs can equal and none surpass. Gladioli are of the simplest culture. Plant any time from March to June.



GLADIOLI CHILDSI—Finest mixed. This wonderful new giant type originated in Germany; is of much stronger growth and large flower than the original type. By mail, 5c each, or 40c per doz.

Peonies

MADAME CROUSSE—Snow white, large and full; center petal tipped carmine. Extra fine. This we think the best White Peony. Price, 75c each postpaid.

KOHINOOR—Shell pink. Very free; splendid cut-flower sort. Midseason. Price, 50c each postpaid.

LOUIS VAN HOUTTE—Brilliant dark red flowers, of medium size; freely produced; good cut-flower sort. Midseason. Price, 50c each postpaid.

Lily of the Valley



One of the most satisfactory and charming Spring flowering plants, producing in profusion its delicate bell-shaped, delightfully fragrant white flowers. Valleys thrive in any common soil, are perfectly hardy, and will succeed in shady situation. Selected tips, each, 5c; doz., 40c.

Lilium Auratum

The handsomest and best known of the Japan Lilies. Its immense ivory-white flowers are thickly studded with yellow and crimson spots, while in the center of each petal is a gold band fading at its edges into white; very fragrant. They bloom from June to October. Large bulbs, each, 15c; doz., \$1.50.

In order to grow strong and
vigorous plants use plenty of fer-
tilizer. We have a great many
kinds. See page 31.

Sulpho-Tobacco

Soap

There is nothing better for
spraying plants and Roses than
Sulpho Tobacco Soap. Directions
are on each package. See page 43.

CLOVER and FIELD SEED

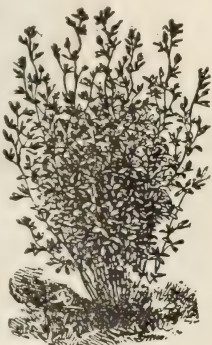
Owing to the shortage in crops throughout the United States and Europe some of the grass seeds are very high, and European reports show that they expect to have to depend on us for some varieties.

TAKE NOTICE

Owing to the extreme market changes we cannot print prices good for any length of time. When ready to buy write us for prices, stating quantity wanted, or if you send money, we will ship seed to cover amount sent.

Alfalfa, or Lucerne Clover

The most valuable forage plant; is particularly adapted for our Western climate and soil. It requires a deep, mellow soil; newly broken sod does not do so well. It thrives best in a sandy loam, the richer the better, while it has not proved a success on heavy, compact clay soil. In the driest and most sultry weather, when every blade of grass withers, Alfalfa is as fresh and green as in the spring, as its roots go down from 10 to 20 feet to the moisture of the ground. Although a prodigious yielder, it does not exhaust the soil, but rather improves the ground by the decay of its long roots, and converts it into rich ground, full of vegetable matter. The seed may be grown early in the spring, as soon as the frost is out of the ground, in order to catch the spring rains, as it needs moisture to germinate. In localities where irrigation is used it can be sown successfully at any time during the summer months. Most of our successful Alfalfa growers prefer sowing the seed broadcast, while others are more in favor of drilling it in. It is more difficult to establish the first year, but will, when once started, produce a profitable crop; under favorable circumstances three and even four crops are cut yearly, aggregating five to seven tons to the acre. Never sow less than 15 pounds of good, clean seed to the acre, as thin sowing produces thick and coarse stalks not relished by stock. If intended to raise Alfalfa for the seed, 12 to 15 pounds is plenty to sow on an acre. It is worthy of trial in any locality where it has not already been tested. Per lb., postpaid, 35c; 100 lbs., write for prices.



ALFALFA.

Turkestan Alfalfa

This new Alfalfa, introduced from Turkestan, has been experimented with more or less for the past few years. In some places it has proved a great success. In general appearance it is very much like our regular growth in the driest and hottest sections without irrigation. It is perfectly hardy and will stand extreme cold in winter without harm. It yields a very heavy and rich crop of hay and makes permanent pasture. We have secured a good stock of the pure, genuine seed, which we offer at the following prices: Per lb., postpaid, 35c; 100 lbs., write for prices.

Dry Land Alfalfa

For high, dry, hot land. We are now able to offer in quantity this new Dry Land Alfalfa, which will produce large, profitable crops of hay and excellent pasture on the high, dry lands of Eastern Oregon, Washington, Idaho and Utah. This is especially recommended for the hills and plateaus which are above irrigation ditches or in sections where irrigation is impossible. The new "Dry Land" Alfalfa is what might be called "a new strain, acclimated to dry land." Price per lb., postpaid, 35c; 100 lbs., write for prices.

Mammoth Red Clover

Being a rank grower makes it most valuable for fertilizing purposes. Foliage, flower and stem much darker than common Red Clover; ripens later than the latter, about the time Timothy, Red Top and other grasses ripen, making

thereby a much better quality of hay, when mixed with them. Sow 12 to 15 lbs. to the acre. Per lb., 40c; 100 lbs., write for prices.

Alsike, or Swedish Clover (*Trifolium Hybrium*)

A perfectly hardy variety which is rapidly growing in popular favor. It yields large crops of excellent hay, and under favorable conditions may be cut several times during the season. It is also valuable for bees. It is well calculated to resist both drought and excessive moisture. The hay of this variety is greatly preferred by some to that of Red Clover, for the reason that it is generally finer, brighter and not so dusty, making it better for horses. It is perennial and produces a mass of long fibrous roots which hold the soil, making it useful for permanent pasture on hillsides which are liable to wash. When used alone sow from eight to ten pounds per acre. Per lb., postpaid, 40c; 100 lbs., write for prices.

Medium Red Clover

The standard clover for all purposes, either hay, pasture or for improving and enriching the soil. It is hardy and succeeds well on any good soil. It yields the heaviest crop of any clover except alfalfa, and makes superior hay—especially if mixed with timothy—either for dairy cows or for general use. Sow from twelve to fifteen pounds per acre, being careful to get it evenly distributed over the ground. Per lb., postpaid, 40c; 100 lbs., write for prices.



RED CLOVER.

White Dutch Clover (*Trifolium Repens*)

A small variety having a white blossom. It is of a vining nature, spreading rapidly and will soon cover bare spots if the stand be even. It does not attain sufficient height to be profitable for hay, but is superior for pasture, either for cattle or sheep, and unsurpassed for the production of honey. It also makes a beautiful lawn when mixed with Blue Grass. If sown alone, use six to eight pounds per acre. Per lb., postpaid, 50c; 100 lbs., write for prices.

Fancy for lawn. Per lb., 60c; 100 lbs., write for prices.

Bokhara, Sweet or Honey Clover (*Melilotus Alba*)

A rapid growing, white flowered sort; excellent for bees. Sow ten pounds per acre. Per lb., postpaid, 35c.

Crimson, or Scarlet Clover (*Trifolium Incarnatum*)

Highly recommended for pasture and fertilizing purposes. It is a thrifty annual, growing from twenty to thirty inches high, and has a beautiful crimson bloom. It germinates quickly, grows rapidly and stools abundantly. Sow from twelve to fifteen pounds to the acre, and harrow it with a light harrow. Cut for hay when in full bloom. Per lb., 30c; 100 lbs., write for prices.

Esperette, or Sainfoin (*Onobrychis Sativa*)

A deep rooting, perennial legume, extensively cultivated on dry, calcareous soils which are too barren for clover or alfalfa. It is rather difficult to establish, as plants are easily killed when young, but when once rooted, will live from ten to twenty-five years. Sow 50 pounds per acre. Per lb., postpaid, 30c; 100 lbs., write for prices.

Timothy Seed

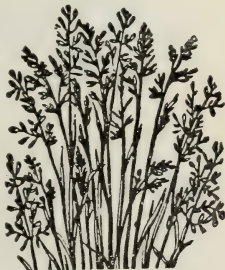
Timothy is a native of Europe, but long ago naturalized in America, where it ranks as by far the most important of hay grasses. Its popular name, by which it is now known the world over, refers to Timothy Hanson, who did most to make it known and appreciated. On moist, loamy or clayey soil it produces a larger hay crop than any other grass. It is not so well suited for light, sandy soils. Though preferring a moist, temperate climate, it withstands drought and extreme heat and cold. Its hay is very nourishing and can be preserved for a long time. It should be cut when flowering, as, if left later, the hay becomes hard and coarse. It is often sown along with red clover, and the nutritive value of the hay is greatly increased by the mixture. Height, 2 to 3 feet. Per lb., postpaid, 35c; 100 lbs., write for prices.



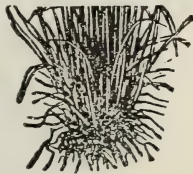
TIMOTHY.

Red Top (*Agrostis Vulgaris*)

RED TOP (*Agrostis Vulgaris*)—In Pennsylvania and states further south, this is known as Herd's Grass, a name applied in New England and New York to Timothy. It is a good, perennial grass, standing our climate well and makes good pastures when fed close. Is valuable for low, wet meadows, producing a large return in good hay. When sown alone, use twenty-eight pounds of the chaff seed per acre. Sow in spring or fall. Fancy (cleaned from chaff). Sow eight to ten pounds per acre. Per lb., 30c; 100 lbs., write for prices.



RED TOP GRASS.



Tall Meadow Oat Grass (*Avena Elatior*)

A hardy perennial much used in the south and west. Its roots penetrate deep, and it thrives on any good soil. It yields a heavy crop and is valuable for both meadow and pasture. If used alone, sow from thirty to forty pounds per acre. Per lb., postpaid, 35c; 100 lbs., write for prices.

Brome Grass (*Bromus Inermis*)

A perennial grass valuable for binding the soil of embankments and on account of its ability to resist both drought and cold. On light, dry soils it is used for both hay and pasture, but it is not recommended for locations where better grasses will succeed. Should be used at the rate of twenty pounds per acre. Per lb., postpaid, 30c; 100 lbs., write for prices.

English Rye Grass (*Lolium Percune*)

This makes a quick growth very early in the spring, and is adapted for cool, moist locations, recommended for fall seeding on Bermuda-grass lawns in the south, giving them a bright green appearance all winter. Twenty-four pounds to the bushel; three bushels to the acre. Per lb., postpaid, 25c; 100 lbs., write for prices.

Italian Rye (*Lolium Italicum*)

This is distinct from the preceding, being of much larger and stronger growth, with large, broad, glossy green blades. It succeeds best in moist, fertile soils. About twenty pounds to the bushel; three bushels to the acre. Per lb., postpaid, 25c; 100 lbs., write for prices.

Orchard Grass

No farmer should be without a small field of Orchard Grass, as in many respects it is superior to all other grasses. It stands the drouth, grows well in the shade, does well in wet or poor ground, and is splendid to prevent worn-out fields from washing. This grass furnishes excellent pasturage three weeks before any other, and after close grazing ten days' rest is sufficient for another growth. Cows fed on this will produce more and richer milk than on blue grass. It makes a very heavy sod and when well set remains for many years. It is especially adapted for winter grazing, as it remains green all season. Per lb., postpaid, 35c; 100 lbs., write for prices.



ORCHARD GRASS.



Meadow Fescue (*Festuca Pratensis*)

A perennial variety growing three to four feet high. It roots deep, but resisting drought better than most grasses. It succeeds on any ordinary soil; yields a heavy crop of superior hay; one of the best grasses for pasture. Valuable to mix with other kinds. Use 20 pounds per acre when sown alone. Per lb., postpaid, 35c; 100 lbs., write for prices.

Canadian Blue Grass (*Pea Compressa*)

A hardy perennial growing on poorest and driest soils. Short (6 to 8 inches), hard and wiry, but high in nutritive value. Decidedly blue in color. Stems flattened. Invaluable for use on steep places or exposed situations. Sow three bushels to acre. Per lb., postpaid, 30c; 100 lbs., write for prices.

Kentucky Blue Grass

This makes the best, sweetest and most nutritious pasturage for all kinds of stock. Kentucky has long been famous for its high-bred horses and its blue-grass pastures. It is now possible to establish on most any farm a blue-grass pasture of greenest verdure which will give very profitable returns. This grass is the first to start up in the spring and remains green until snow flies in the fall. It is very hardy and is uninjured by cold or dry weather, hot sun or tramping of hoofs. The roots are so thick and stout as to form a tough sod. Blue grass requires about two years to get well started and for that reason it is often sown in mixture with other grasses. It will do well on almost any land. Sometimes called "June Grass." From 20 to 25 pounds of "Sterling" grade seed required to the acre. Per lb., postpaid, 50c; 100 lbs., write for prices.



KENTUCKY BLUE GRASS.



How to Make a Lawn

The ground should be spaded deeply and thoroughly, and a good compost of decomposed and finely pulverized manure or rich loam spread over the ground. It would be well, also, to give a sprinkling of bone dust. Then use a

slanted tooth harrow and a light or medium roller until the soil is smooth, even and firm. Then sow the seed and harrow again and smooth off with a common garden rake. When the grass has grown 2 or 3 inches in height use the lawn mower, gauged to cut full one inch above the ground; repeat the same as often as it grows to that height. The weeds and foul grass can be kept down and destroyed by the repeated mowing. If this is neglected they will spread and take possession of the soil, but being constantly clipped, the leaf and seed stalks are destroyed and the foul vegetation disappears.

As a guide for the proper quantity to order, we may state that one pound of Fancy Mixed Lawn Grass Seed is sufficient to thoroughly sow an area of 20 feet by 15 feet—300 square feet. It should be borne in mind that in order to produce the best results grass seed for lawns should be sown at least thrice as thickly as if sown for hay.

As soon as the grass has become well established a dressing of good Lawn Fertilizer is necessary to keep up that beautiful fresh appearance.

LAWN GRASS

Our Own Mixture

This is especially fine. Carefully prepared. Will give best results. Per lb., postpaid, 55c; by express, 10 lbs., \$4.00.

MILLETS

GERMAN MILLET—No other grass or forage plant has been able to produce the enormous yield of this plant. It has produced four to five tons of hay to the acre, and from 70 to 80 bushels of seed. It is sown in the spring on newly broken prairie, and after harvesting it leaves the ground in the finest condition for wheat. Sow 25 to 40 pounds to the acre. Per lb., postpaid, 20c; 100 lbs., write for prices.

MANITOBA, OR HOG MILLET—Very rich and thus especially valuable as a hog food. A very much prized peculiarity of this millet is that the seed ripens while the stem is yet green, thus if cut promptly can be threshed for the seed, while the hay after being threshed will make excellent fodder. Sow same as other millet. Per lb., postpaid, 20c; 100 lbs., write for prices.

NEW SIBERIAN, OR RUSSIAN MILLET—Is claimed to be the most wonderfully productive and satisfactory forage plant, possessing in a superior degree all the essential merits of any of the older sorts—exceeding them by far—besides many other points of excellence that distinguish it and render it a most valuable addition to the list of forages, and, if the claims are well founded, destine it to take front rank, and if not lead all the rest. The claims made by its introducers are that it is from two to three weeks earlier than the German Millet, is a much heavier cropper, that the hay is much finer, stalks more elastic and growing much taller, that it is rust-proof, and chinch bugs do not relish it, and being of stooling habit, requires much less seed per acre. You should try it. Per lb., postpaid, 20c; 100 lbs., write for prices.

HUNGARIAN MILLET—This grass resembles millet very much. It is of fine growth, and makes an excellent hay. It has numerous succulent leaves, which furnish an abundance of green fodder, taken by all kinds of stock. Sow 25 to 30 pounds to the acre. Per lb., postpaid, 20c; 100 lbs., write for prices.

JAPANESE MILLET—Is of recent introduction, and great claims are made for it as to productiveness and value as a forage plant. Its introducers say that it is a marvelous grower and luxuriant stooler. Recommended highly for feeding dairy cattle, young stock and sheep, being very rich in nutritious elements. Grows from four to seven feet tall, but is not harsh and woody, as other grasses are. In some sections of the country it is known as Barnyard Millet, while in other parts of the country it has been erroneously introduced under the name of Billion Dollar Grass by some seed houses. In spite of these names it is such a good thing that it has come to stay, and will live long in the public favor under its proper name, Japanese Millet. Per lb., postpaid, 20c; 100 lbs., write for prices.

Buckwheat



JAPANESE—This variety excels all others; yield much heavier; ripens one week to ten days earlier; stands up better and makes better flour. Excellent for bee pasture. Per lb., postpaid, 20c; 100 lbs., write for prices.

SILVER HULL—A very good and popular variety. Grain is of light gray color, rounder than the common; has a thin husk; matures earlier and yields heavy. A good milling variety. Per lb., postpaid, 20c; 100 lbs., write for prices.



Dwarf Essex Rape

Main standby of the English farmer in raising choice mutton. Perfectly hardy, and of remarkable fattening properties. Easily grown. One acre will pasture 36 head two months, and lambs will make a gain of from 8 to 12 pounds per month. Pigs and cattle are also extremely fond

of it. A very rank grower and bears heavy manuring and high cultivation. Sow at intervals of several weeks and secure a supply of good feed. Sow in June. Rape should be fed in August, though if a first crop be cut about four inches from the ground an after-growth would be useful later. For breeding flocks a piece should be sown first week in July or later. Does well sown with oats. If soil is rich and clean sow broadcast, otherwise in drills and cultivate same as corn. Poultrymen will do well to grow a small patch to feed green to growing chicks. Can be sown on wheat stubble, furnishing excellent pasture late in the fall. Broadcasted it takes 8 to 19 pounds to the acre. **Lb., 25c** postpaid, express or freight; **10 lbs., \$1.00; 100 lbs.,** write for prices.

Canada Field Peas



CANADA FIELD PEAS—This pea is adapted to cultivation in Washington, Oregon and British Columbia. This should be sown in the early spring, at the same time as grain, using from one to one and a half bushels of peas and an equal quantity of either wheat or oats or barley. The crop is ready to cut for hay when the dominant variety in the mixture is nearly ripe. If there are more peas than grain, then the yellowing of the peas and pods marks the time for cutting, or if the grain exceeds the peas, then the crop should be cut when the grain is in the dough stage. **Per lb., postpaid, 20c; 100 lbs.,** write for prices.

THOUSAND HEADED KALE

The great demand for this wonderful forage plant proves it to be the most valuable green feed for Pacific Coast dairy and stockmen; endorsed by Agricultural Colleges and Government Stations. **Postpaid oz. 10c; ¼ lb., 20c; lb., 60c.**

Kaffir Corn

An excellent fodder plant, yielding a large crop of fodder during a season. Grows four to five feet high; upright stalk, with numerous large leaves. Greatly relished by cattle and horses. The seed crop is also heavy, sometimes yielding 60 bushels to the acre. It does best sown in drills

three feet apart, using six to eight pounds of seed per acre. **Per lb., postpaid, 20c; 100 lbs., \$4.50.**

Broom Corn, Improved Evergreen

This is the most popular variety of broom corn to grow for the market, the brush being firm and of good length, and retaining the light green coloring when properly cured. **Per lb., postpaid, 20c.**

Sugar Cane, Early Amber

The high value of northern grown sugar cane for fodder and ensilage is becoming rapidly known. It may be made to furnish the principal food for cattle and horses from August until the following spring. When fed down young as a pasture it grows rapidly again. It also withstands severe drouth with the best of this kind of plants. As a fodder and for winter feed it is one of the most economical. The Early Amber is the best variety for sugar, and it matures quickly. **Per lb., postpaid, express or freight, 25c; 10 lbs., \$1.00; 100 lbs., \$6.00.**

Vetches

SPRING—A pea-like plant grown extensively in England and to a considerable extent in Canada, for stock feeding, but not as much used in the United States as it should be. Culture same as field grown and cowpeas. **Per lb., 20c** postpaid; **100 lbs.,** write for prices.

WINTER, SAND OR HAIRY VETCH (*Vicia Villosa*)—This is a very valuable forage plant—and becoming more popular every year. It belongs to the pea family, but the vines much longer and the foliage more abundant—it improves the soil, being a great nitrogen gatherer. It is an annual, but drops its seeds freely and will come up year after year on the same ground. Then can be plowed under same as cow peas—it is advisable to sow oats, barley or rye, etc, with Vetch which serves as a support for the plants. It succeeds on almost any soil and should not winter kill. A sowing in August or September covers the ground before winter and prevents washing during the winter and early spring. Can also be sown in April and will be ready to cut by the middle of July, the second growth affording excellent hog pasture during the summer. The yield of forage varies from ten to fifteen tons per acre, equal to three or four tons when cured as dry hay. Would suggest sowing about 30 pounds to acre. **Per lb., postpaid, 30c; 100 lbs.,** write for prices.



Hairy Vetches

Sunflower, Mammoth Russian

The largest and most productive variety. Heads often 12 to 20 inches across. Every farmer should plant a few rows at least. It makes one of the very best of foods for poultry; a great egg producer. **One lb., postpaid, 25c.**

For Broadcast Seeders, see page 36.

SEED GRAINS

Recleaned

We give special attention to our Seed Grain Department. Having one of the best cleaning plants in the Northwest, we aim to have our prices as low as possible consistent with quality, but owing to the extreme fluctuations we are unable to affix prices on all varieties. When ready to buy, write us giving quantity wanted and we will quote you at once.

Recleaned Wheat—Spring

BLUESTEM—A remarkable, semi-hard spring wheat, yielding large crops, free from rust. The millers here pay more for it than for any other sort. It is fully equal to the old Fife Wheat, and yields a very much larger crop. It is now the main crop in the northwestern states, and the great milling kings use it for their leading grade of flour. It has been the most reliable variety year after year, yielding a good crop when other kinds failed. One of the best varieties for hay.

SONORA—Light colored small kernel, medium hard. A variety much used for breakfast foods.

Recleaned Wheat—Winter

JONES FIFE—A medium hard red variety, less likely to shell than many.

MARTIN AMBER—Medium light kernel, much used for hay and cereal foods.

GOLD COIN—Light colored grain, very hardy and a good yielder.

Recleaned Rye

Rye is a valuable and very hardy crop producing green fodder either in the early spring or late fall. It is considered preferable to wheat because it is harder and protects the young grass, matures before other crops come in and can be sown on soil too poor for other cereals.

SPRING RYE—Spring Rye is an excellent catch crop where winter grain has been killed out, or for sowing where a fall crop has not been planted. If desired it can be turned under and made to answer a good purpose in adding to the fertility of the soil. We call particular attention to the fact that we offer genuine Spring Rye. Many have been disappointed in receiving Winter Rye as a spring variety, and we wish to emphasize the fact that we sell the **Genuine Spring Rye, sown in spring and harvested the same season.** We now offer an extra fine grade and to insure receiving all your requirements we advise placing your order early. **100 lbs., \$2.50.**

WINTER RYE—The value of Winter Rye is becoming more apparent every year. It is much harder than wheat and can be grown on a greater variety of soils, even on soil that would not produce a fair crop of wheat. It will thrive even in dry seasons and on light sandy loam. It is grown not only for grain, but for fodder and soiling purposes also. When sown in the autumn it starts up very early in the spring and is ready to cut or pasture when about six inches high. It is often plowed under at this stage of its growth as it is then in condition to add great fertility to the soil. Rye does not exhaust the soil as do other grains and can be cultivated longer on the same land than any other crop on the farm. **100 lbs., \$2.25.**

Barley

BEARDLESS BARLEY—Very early and free from beards; handles as easily as Oats, making a stronger feed. Makes magnificent hay for work horses. Sow as early as you can; frost will not hurt it. **100 lbs., \$2.50.**

WHITE HULLESS—The earliest variety of Barley known. If sown in September will ripen about the end of June. Grain is flinty and translucent, not unlike wheat, and weighs about 60 lbs. to the bushel. It will yield a magnificent crop of hay, free from beards. Should be sown about 1½ bushels per acre. This is less than common barley. **100 lbs., \$3.00.**

WINTER BARLEY—This is a bearded variety that was introduced in this vicinity two or three years ago. We are slow to offer new varieties, but this has proven so valuable an addition to our grains that in some sections all other varieties are being discarded. We have made arrangements for and expect to be able to supply this in any quantity for fall seeding. Write for prices.

Recleaned Seed Oats

IMPROVED SWEDISH SELECT OAT—Considered by many to be the most valuable oat raised in the Northwest today. It is known under other names, such as King Oscar, Wisconsin No. 4, etc. This was originally quite a late oat made early by growing it in the high altitude in which it was developed. It possesses striking features, the grain is short, plump, white, and very heavy, under favorable conditions averaging about 40 lbs. to the measured bushel. Owing to its great root development it stands very high for its drought resisting qualities. At the Wisconsin Experiment Station it has stood at the head of the list for several years, having been distributed by that station as Wisconsin No. 4. Prof. Moore of Wisconsin, says of the Swedish Oat: "The most satisfactory of all." Prof. Carleton, of U. S. Department of Agriculture, says: "Probably the best American Oat." Prof. Shepard, of the South Dakota Station, says: "They are the best drought resister of all our new plants."

The Swedish Oat has been recommended by experiment stations and others for all soils. We are not inclined to agree in this. Its habit of growth is so vigorous that on heavy soils it is likely to lodge. For light soils it has no superior. **Price, per 100 lbs., \$2.50.**

We can also furnish other standard varieties of oats. When ready to buy write for prices.

Kill the Smut in Your Grain

If there is smut in your wheat seed destroy the smut and persist in it; you should also insist that your neighboring wheat growers endeavor to destroy the smut. This trouble is becoming very prevalent. Smut must be destroyed if wheat is to keep up its high grade of milling qualities.

Remedies for Smut

BLUESTONE—Market price. Use 1 lb. to 5 bu. grain.

FORMALDEHYDE—One-lb. bottle, 40c. Use 1 lb. for 40 to 50 gallons of water.

Flax Seed

RECLEANED FOR PLANTING—Per lb., postpaid, 20c; 100 lbs., write for prices.

GROUND FLAX—For medicinal uses. Per lb., 15c; 100 lbs., write for prices.

OIL MEAL—For feed purposes. 120-lb. sks., \$3.60 per sk. Special prices in quantity.

Bird Seed

CANARY—Per lb., 20c postpaid.

HEMP—Per lb., 20 c postpaid.

RAPE—Per lb., 20c postpaid.

MILLET—Per lb., 20c postpaid.

CUTTLE BONE—Two for 5c.

SUNFLOWER—Per lb., 25c postpaid; 10 lbs., \$1.00, express or freight.

Fertilizers

Special Fertilizer Booklet giving complete analysis and price of the different fertilizers which we can supply, together with full information for their application, will be sent on request. This book is of great value to all interested in fertilizers.

American farmers and fruit growers are rightly regarded as the most intelligent, enterprising, and prosperous of their class. Our farmers make a success of their business, because they are up-to-date and ever ready and quick to adopt the latest improvements and the newest methods. They take advantage of the teachings of science, and make practical use of recent discoveries, whereby they increase the fertility of their lands and gather large and profitable crops. They not only know, but they have found out that it is necessary to put back into the soil those substances which have been taken out year after year by their crops. Science has shown that Potash, Phosphoric Acid and Nitrogen are continually used up from the soil by growing crops. Unless these substances are returned in the form of fertilizers, the farmer's lands will surely and steadily lose their productiveness, and sooner or later his yields of grains, or fruits, or vegetables, as the case may be, will become less and less.

NITROGEN—The properties of Nitrogen are to form the growth of leaf and stalk; a deficiency of Nitrogen is shown by pale-green foliage, or small growth of leaf or stalk; an excess of Nitrogen is shown by a rank growth of leaf and stalk, but with imperfect flower. In many cases indications of excessive Nitrogen simply means that the Potash and Phosphoric Acid are deficient.

POTASH—This is necessary for the development of flowers and fruit buds—that is, it is especially prominent in promoting an abundant yield of fruit and grain. It has much to do with filling out the pulpy matter of fruits, and the plumpness of grain. The rich coloring of fruits, as well as distinctive flavor, is largely subject to the influence of Potash.

PHOSPHORIC ACID—Enables the plant to make full use of Nitrogen and Potash. It has an important bearing on the development of seeds, especially seeds that are to be used for planting. It influences and hastens the maturity of plants. It helps to form the albumen, and indirectly starch, sugar and fat.

The fertility of soil is not measured by its most abundant fertilizing element, but by the one that is most lacking. Only when necessary ingredients are in proper proportion can maximum results be obtained.

Analysis

FERTILIZER ("A")—

Nitrogen—4 per cent equal to 500 lbs. Nitrate of Soda, per ton.

Potash—7 per cent equal to 280 lbs. Muriate of Potash, per ton.

Phosphoric Acid—10 per cent equal to 1220 lbs. Superphosphate of Lime, per ton.

Particularly adapted to Grain, Truck or General Farming, or wherever the need of Phosphoric Acid is chiefly indicated. Price, 100 lbs., \$3.25; ton, \$57.00.

DRIED BLOOD—

Moisture, 17.09 per cent; Nitrogen, 11.70 per cent; Phosphoric Acid, 1.20 per cent.

TANKAGE—

Moisture, 2.53 per cent; Nitrogen, 5.93 per cent; Phosphoric Acid, 13.12 per cent.

Nitrate of Soda

Contains 13 per cent Nitrate, in quickly available form. Nitrate of Soda is principally used for a top dressing and should not be used in general fertilizing as it is too free. After an application of Nitrate of Soda results will be seen within twenty-four hours and all the benefits will be had from the fertilizer within two or three weeks. It is used for forcing crops like lettuce, celery, etc., as it makes a large growth of leaves and tops.

Apply the Nitrate of Soda by broadcasting it evenly over the entire surface of the vegetable field you are fertilizing, at the rate of 200 pounds per acre, before seeding, or planting, or transplanting.

As Nitrate is a powerful plant tonic and energizer—it is not a stimulant in any sense of the word—a very small quantity does a very large amount of work. The quantity to be used per acre, although small, will be adequate to make a very striking increase in the amount of vegetables produced. A tablespoonful of Nitrate of Soda in three gallons of water, soaked in the ground around the roots once a week, will keep destructive bugs from growing vegetables. Price, per 100 lbs., \$3.75; 1000 lbs., \$35.00.

Muriate of Potash

Put up in 225-pound bags. Contains 50 per cent

of Potash. The fertilizer is especially valuable in Western Washington and the Willamette Valley, as Potash is a plant food that is deficient. Use about one sack to the acre. Price, per 100 lbs., \$3.75; 225-lb. bags, \$7.50.

Sulphate of Potash

Put up in 225-pound bags. Contains 50 per cent Available Potash. This is similar to Muriate of Potash but is free from chlorides, and can be used to advantage in some instances where the muriate can not be used. Advise all customers to send to us for a book on Potash Salts. Tells the difference between the various kinds and where each one is most available. Use about one sack to the acre. Price, per 100 lbs., \$4.00; 225-lb. bags, \$8.25.

Bone Meal

This contains 3 per cent Nitrogen and 22 per cent Phosphoric Acid. Bone Meal is the basis of almost all fertilizers and is probably the cheapest and most valuable fertilizer that we have. It is slower in action, but will not dissolve and waste in the soil, as the plant food contained in the Bone Meal is released only as fast as the roots of the plants take it up. Our Bone Meal is all made from the fresh bone, which contains all of the Phosphate. Price, per 100 lbs., \$2.50; ton, \$45.00.

KAINIT is a crude salt; that is, it has not been refined or manufactured other than being ground into a condition ready for application as a fertilizer. It is sold under a guarantee of 12.4 actual Potash and contains Potash both in the forms of Sulphate and Muriate. It contains Salts of Magnesia and also common Salt. Kainit can be used upon the crops for which Muriate of Potash is recommended. Price, per 100 lbs., \$2.00; 225-lb. bags, \$3.50.

Tankage

This is a slaughter-house product composed of meat scraps, hoofs, tendon, bone, etc. These are ground into a fine meal, having but little odor and serves as a useful carrier of both Nitrogen and Phosphoric Acid. The analysis shows 5 to 7 per cent Nitrogen and 12 to 15 per cent Phosphoric Acid. Per 100 lbs., \$1.50; ton, \$25.00.

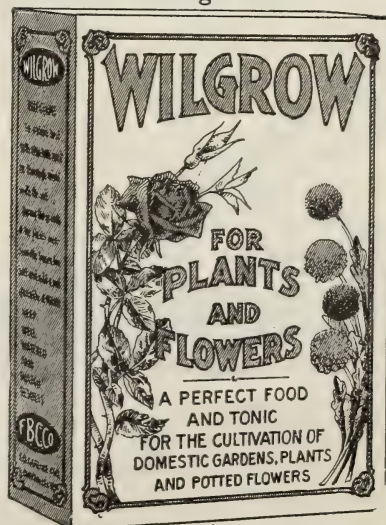
Blood Meal

Pure blood, cooked, dried and finely ground. A quick-acting fertilizer, analyzing very high in effective Nitrogen; in fact, the Nitrogen of Dried Blood is one of the most effective forms of organic Nitrogen known. This also carries some Phosphorus; is a strong fertilizer, a little going a long way. Per 100 lbs., \$3.00; ton, \$45.00.

Land Plaster, or Gypsum

Made from pure Gypsum, absolutely free from clay or other foreign matter. This is especially valuable for clover and grass crops. Per 100 lbs., \$1.00.

Wilgrow



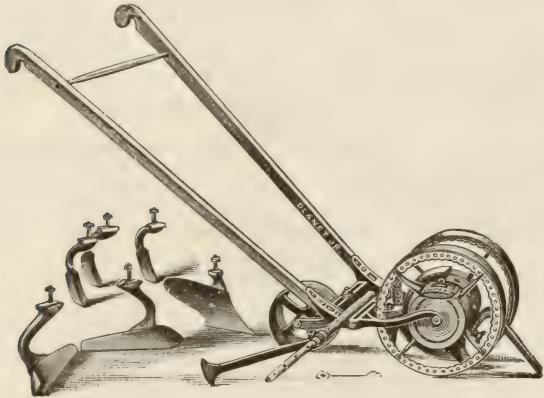
The perfect concentrated fish fertilizer for the house garden, flower garden, fruit orchard, vegetable field, lawn, nursery, hothouse and potted plants. Price, 1½-lb. carton, 25c; postpaid, 50c.

Planet Junior Farm and Garden Tools

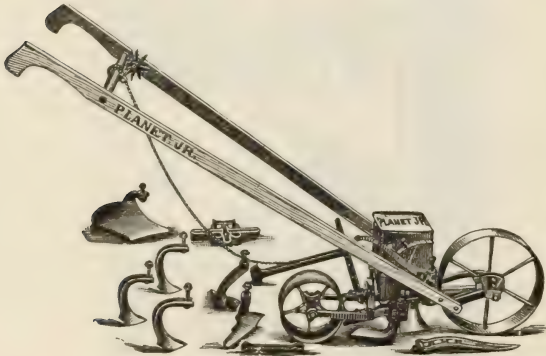
Space will not permit our showing and describing all of the "Planet Jr." Tools, but we will send a full illustrated catalog free for the asking to any one desiring it, and we can supply promptly anything ordered. "Planet Jr." goods are standard machines, the best on the market. In sending your orders to us you can rely on getting bottom prices.

No. 1, Planet Jr. Combined Drill Seeder, Wheel Hoe, Cultivator and Plow. Price, complete, \$11.00.

This tool is known and used the world over, and excepting our hill and drill seeders, is the most perfect drill known. The hopper holds three pints, and sows in an even, regular stream, whether there is much or little seed in it. The machine is extremely simple, has no agitators, belts or gearing, and will not injure any seed. From a drill it is changed to its other uses by removing two bolts, when hoes, cultivator teeth or plows can be quickly attached. It is a practical everyday time and labor saver, a grand remedy for the backache, and the best low priced combined machine on the market.



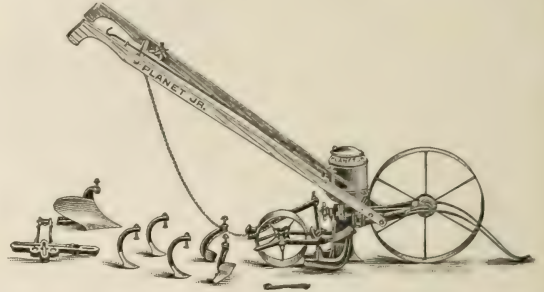
Planet Jr. No. 4, Combined Seed Drill, Single Wheel Hoe, Cultivator and Plow. Price, complete, \$12.50. Seeder only, \$10.50.



This is the most popular combined tool made. It combines in a single implement, a first-class, hill-dropping seeder, a single wheel hoe or weeder, a cultivator and a plow. The hopper holds two quarts of seed, which can be sown in continuous rows, or dropped in hills at 4, 6, 8, 12 or 24 inches apart.

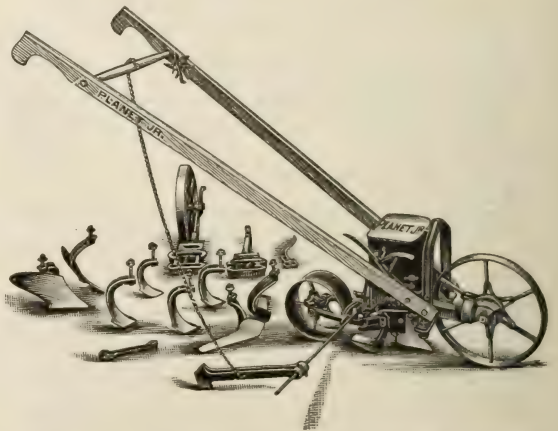
The drill is detached and the tool frame substituted by removing but one bolt. It then becomes a single wheel hoe. It is useful almost every day of the season, at every stage of the garden work. With this one implement the small farmer can do practically all the work in his small crops.

No. 6, Planet Jr. Combined Hill and Drill Seeder, Wheel Hoe, Cultivator and Plow. Price, \$15.00.



This, our latest Planet Jr. Seeder, has been under construction for two years past, and has been held back until every detail has been made as nearly perfect as possible. The steel carrying wheel is 16½ inches high, with forged steel spokes, making an easy running tool. Handles adjustable. The feed and cut-off are the most accurate we have ever constructed. The opening plow is of a new shape, leaving the seed in a narrower row than any plow we have heretofore made. The roller is large and wide, leaving the seed in excellent condition for germination. This drill sows in drills, drops in hills 4, 6, 8, 12 or 24 inches apart, covers, rolls down and marks the next row, all in one passage. As a wheel hoe the frame is similar to our No. 17 Single Wheel Hoe and equipped with the same tools. The combination is the best and most useful we have ever offered.

Planet Jr. No. 25, Combined Hill and Drill Seeder, Double Wheel Hoe, Cultivator and Plow. Price, \$15.00.

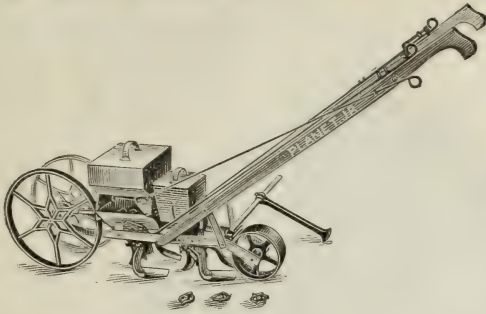


This new combined machine is intended for gardeners who have a large enough acreage in crops for a double wheel hoe to be used to good advantage, and prefer not to buy separate machines.

As a drill it is almost identical with the Planet Jr. No. 4 Drill, and is thoroughly substantial and accurate in sowing all kinds of garden seeds in hills or drills.

As a wheel hoe it is identical with the Planet Jr. No. 12 Double Wheel Hoe, the very best machine on the market. The change from drill to wheel hoe takes but a moment and the whole combination is one we can heartily recommend and guarantee satisfactory.

No. 21, Combined Hill and Drill Seeder and Fertilizer. Price, \$22.00.

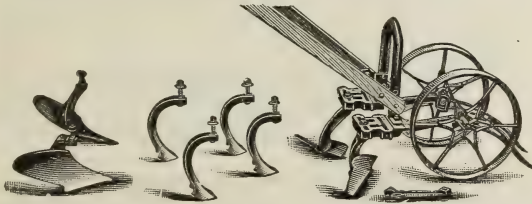


No. 21 has been much improved for 1912 and meets the demand for a drill to sow seed and fertilizers at the same time. This tool may be used to sow seed only, in either hills or drills, as desired; or to sow fertilizer only; or to sow both together. Its work is equally perfect when used in any of these ways. It sows all garden seeds in hills, 4, 6, 8, 12 or 24 inches apart, or in drills, and also fertilizer, placing it above or below the seed as desired. The quantity is regulated by our patent feed rod and index at the top of the handle. The seed hopper holds 2 quarts; the fertilizer hopper 4 quarts.

No. 21 is gradually growing in popularity and the demand indicates satisfaction given.

While performing a double service, it does not run too hard for the work accomplished. The parts are galvanized and the whole get-up is a desirable one. Packed weight, 94 lbs.

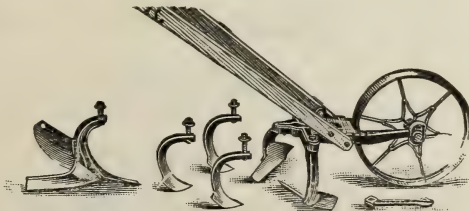
Planet Jr. No. 12, Double Wheel Hoe, Cultivator and Plow. Price, \$8.00.



Two acres a day can be easily worked with this implement, and when it is done it will be a better job than three men could have done with hand hoes. The No. 12 runs either astride or between the rows; kills all the weeds and leaves the earth in fine shape. Then, too, it's so easy to work. Twelve-year-old girls work gardens with them with ease and success.

The No. 12 has a pair of 6-inch hoes, a pair of plows for opening or covering, and a set of four all-steel cultivator teeth. The tools shown are what gardeners use most and others can be added as wanted.

Planet Jr. No. 17, Single Wheel Hoe, Cultivator and Plow. Price, \$6.00.



For easy gardening and at the same time clean and perfect gardening, the kind that will make your garden the talk of the neighborhood, and cause your face to glow with honest pride, nothing is quite the equal of this No. 17 Wheel Hoe. It is suited to all kinds of garden cultivation and all garden crops. You can do more and better hoeing with it in one day than you can do in three days

with a hand hoe. The No. 17 has a pair of 6-inch hoes, a plow and a set of cultivator teeth, an outfit sufficient for most garden work.

Other attachments can be added at any time.

No. 11, Double Wheel Hoe



This is the greatest cultivating tool in the world for the onion and the sugar beet grower, and also for every grower of garden crops from drilled seed. They can do more work and do it better and easier than can possibly be done in any other day. One pair 6-inch hoes, one pair 4-inch hoes, two pairs hollow steel cultivator teeth, one pair plows, two 3-tooth rakes, two 5-tooth rakes, and two leaf lifters. Packed weight, 37 lbs. Price, with attachments as in cut, \$10.25.

Planet Jr. Twelve-Tooth Harrow, Cultivator and Pulverizer. Price, plain, \$7.80; with wheel, \$8.35; complete, \$11.00.



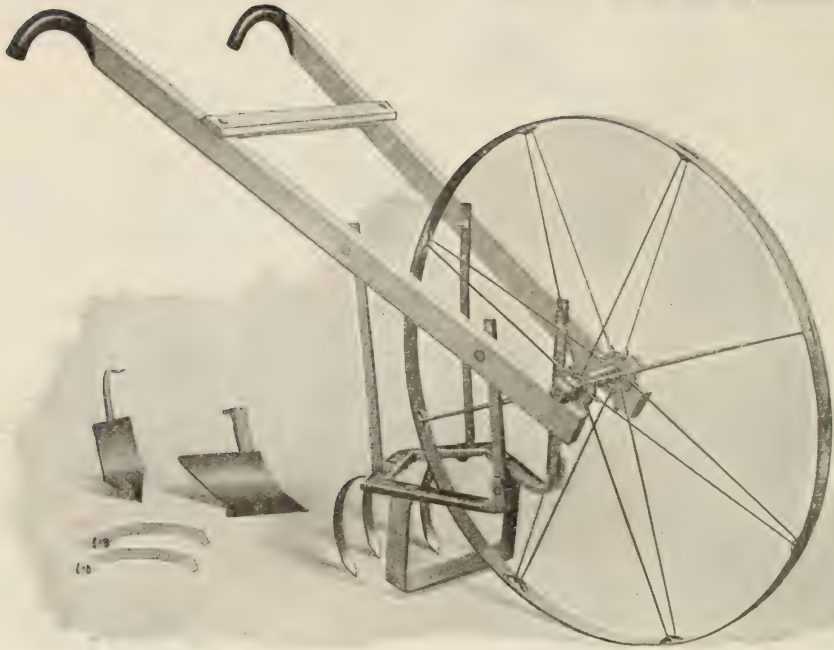
Gardeners cultivate better than formerly. It has been found to pay best. The farmer or gardener is most likely to cultivate best who has the tool best adapted to his purposes. With the 12-tooth harrow here shown you go as deep or shallow as you like, come up close to row without injuring plants, cut out all the weeds, stir the soil and mellow and fine it as with a garden rake. You widen and narrow as you please between 12 and 32 inches. It's a special favorite with strawberry growers, market gardeners and truckers.

The No. 6 "Iron Age" Combined Double Wheel Hoe, Hill and Drill Seeder.



This tool is without question the most practical and complete combined garden tool ever offered the public—the ease and simplicity of adjustment, the lightness combined with great strength, the accuracy by which it drills or hills the seed, and the small amount of power required to operate it, are the important features. The wheel is made of steel, 16 inches high, the frame of pipe, coupled to malleable castings. In each form, whether a seed drill, a double wheel hoe, or a single wheel hoe, it is equal to any tool or tools made especially for the one purpose. It places the seed in drills or in hills as at 4, 6, 8, 12 or 24 inches apart. Complete as in cut. Price, \$12.50.

THE TUSCOLA GARDEN PLOW 30-INCH WHEEL



Five spring tooth plows with polished face and emery ground points. (Such spring teeth found in no other.) Large moldboard attachment may be used for many purposes.

Shovel attachment of right size and shape to mark off or cultivate.

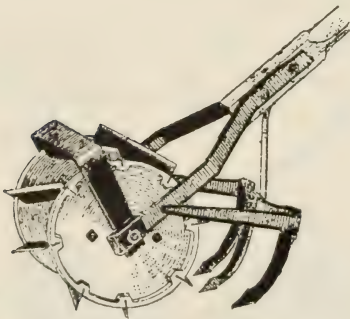
The spring tooth frame straddles the wheel, bringing the pressure while cultivating under the wheel; this gives a lever power in handling found to be a vast advantage to the user.

The large 30-inch wheel raises the line of draft higher, and allows the wheel to pass over cloddy, soft or sandy soil with great ease. Everyone knows the higher the wheel the easier the draft.

This cultivator stands up alone on its own foundation both in store and field.

Has proven a King among Garden Cultivators. Handsome and well made. Every detail indicating a tool of great worth and capacity. Price, \$5.00.

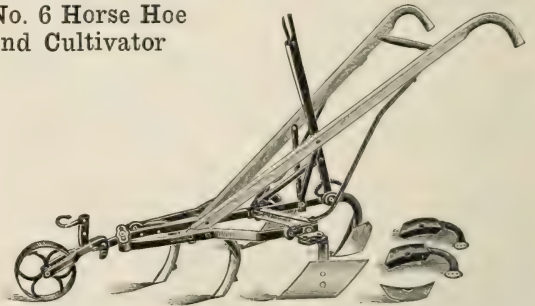
The Right Tool in the Right Place



The Barker Weeder and Mulcher

This cultivator is built on the plan of a lawn mower, runs like a lawn mower and cuts weeds like a mower cuts grass. It cuts the weeds that are under the ground as well as those on top of the ground, thus doing away with two or three crops of weeds at one and the same time. The mulching and cultivating of the soil serves a two-fold purpose as it breaks up the capillary and prevents the moisture from evaporating. It also keeps the surface in such a condition that it readily takes the surplus water in as it falls. Price, \$5.00.

No. 6 Horse Hoe and Cultivator



We can recommend to all of our customers as being one of the best tools made. Price, as in cut, \$7.00.

Corn Knife

The old fashion crooked corn knife with a wood handle. Price, 50c.

**Try our Clover Leaf
Brand of Chick Feed.
It will please you.**

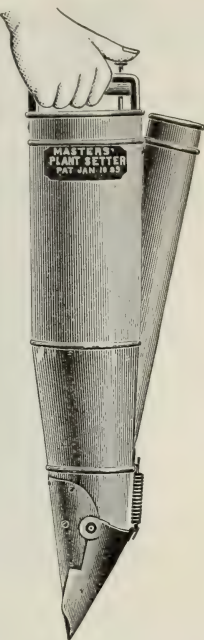
Master's Rapid Plant Setter

The only hand mechanical plant setter on the market. It is built on scientific principles throughout. The conical jaws are made of heavy sheet steel and the main body or water reservoir and plant tube of heavy tinned plate. The water valve is of brass with rubber packing. The valve rod and trip springs are of steel wire. The machine is well put together with rivets and solder and should last for years.

Plants are set in water or liquid manure and covered at one operation. Plants may be safely set out in hot, dry weather. Sets cabbage, cauliflower, tomatoes, sweet potatoes, sugar beets, etc., much more rapidly than by hand and with much less loss of plants. The plant setter has a record of more than 998 plants to grow out of each 1,000 set.

Any man can easily learn to set from 2,00 to 10,000 plants per day.

This system of planting is recommended as proof against cutworms. Weight, crated for shipment, 7½ lbs. Price, \$4.00.



Lang's Weeder



It is very conveniently used, and fits the hand so comfortably that the fingers are entirely free for use wherever necessary. Net price, 25c; postpaid, 30c.

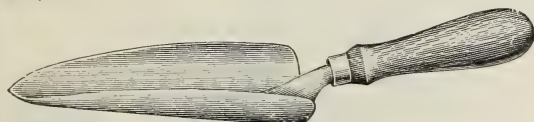
Potato Planters

EUREKA—This is the lightest and best tubular planter made. With this planter one man can plant several times as much ground without getting a lame back as he can plant by hand. The planter locks itself as it is lifted out of the ground, so that the next potato may be dropped in at once and opens automatically as the top of it is moved forward in walking. Price, \$1.50.



"Lightning" Grass Trimming Shears

For trimming ground flower beds, etc. Each, 50c; by mail, 65c.



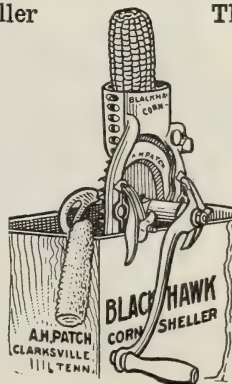
Garden Trowels

A good steel trowel. Price, 35c; postpaid, 50c.

The world's supply of
Beet, Carrot, Parsnip and
Peas is very limited and
we advise placing of
orders early to
insure delivery

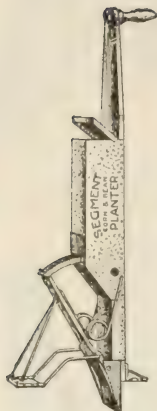
PINGREE, OR ACME—Is practically the same as the Eureka without the tube down the handle. You lift and drop the potato in the lower part. It is light and a very satisfactory planter. Price, \$1.25.

BLACK HAWK CORN SHELLER A Sheller That Shells



It can be set to shell any corn that grows. Set in for popcorn and it will shell popcorn; set it for field corn and it will shell field corn; set it for the largest corn that grows and it will shell the largest corn that grows. That is why it is so much better than other types. Made with ball-bearings, obviating the expense of a heavy balance wheel. Easily fastened to box by thumb-screw—no bolts nor screws required—no holes to be bored. Price, \$2.50.

Segment Corn Planter

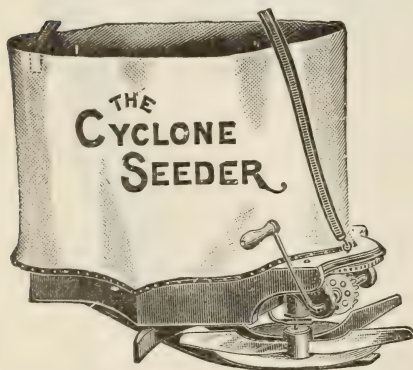


The seed pocket can be sufficiently enlarged to perfectly adapt it for planting the largest field beans as well as corn. The slide is an arc of a circle having its center where the jaws are pivoted together. In other words, the pivots on which the jaws open and shut are the hub of a wheel of which the slide is a part of the rim. There is consequently no friction nor lost motion. Price, \$1.50.

THE ECLIPSE ROTARY CORN PLANTER—Decidedly the best hand corn planter made and a very desirable implement for those who have a quantity of corn to plant. It puts the seed exactly where you want it, and at a proper depth. It is easily worked and a most satisfactory tool in every way. Price, \$1.25.

TRIUMPH CORN PLANTER—Has no objectionable features; is made of good material. Has Iron Seed Box and Iron Channel; foot of polished steel, strong, durable, and gives universal satisfaction. Price, \$1.00.

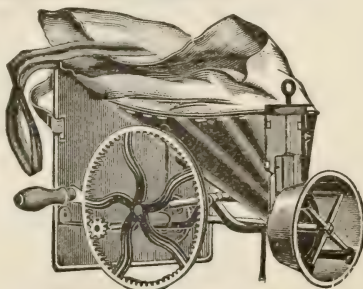
The New Cyclone Seeder



Will sow timothy, clover, oats, red top, turnip, millet, corn, cotton, and all other grains and seeds perfectly even and any desired amount to the acre, and from 40 to 60 acres a day. Price, \$2.25.

Broadcast Seed Sowers

IMPROVED CAHOON—This is probably the most popular broadcast sower on the market. They have a force feed and throw the seed from 15 to 36 feet, according to the seed that is being sown. Price, \$3.50.



The Greatest Exterminator of All Animals That Burrow in the Ground

The Chemical Squirrel Tube is endorsed by the Pullman College and Moscow University.

DIRECTIONS FOR USE—The chemical used is carbon bisulphide. Fill tube two-thirds full of old sacks or any kind of waste, saturate with chemical, and blow fumes in the hole.

THE CHEMICAL SQUIRREL TUBE



DO NOT LIGHT, AS IT WILL EXPLODE—For smoking, old sacks or dry manure has no equal. With about one pint of sulphur to each load this can be used with very little cost to the farmer.

Fifty cents' worth of sulphur will clean 100 acres of badly infested land.

Fill in all holes that smoke escapes from.

If directions are followed success is sure.

Price, \$10.00.

CREAM SEPARATOR The Frictionless Empire

The Frictionless Empire is fattening the pocketbooks of hundreds of thousands of cow owners, and it's easy to see why. These Empires are delivering the most cream in the best condition, and bringing the most dollars to the users' pockets. And further still, long years of service have proven their worth, and proven it conclusively.

The Frictionless Empire is the product of long years of practical study and development. It represents the highest point of separator construction. Mechanical experts agree that in principle, design and construction it is as nearly perfect as man has yet been able to devise.

It meets every requirement when judged by the severest standards of expert machines.

That is the theoretical side.

The practical every-day work's side is proved, as we have said, by thousands and thousands of cow owners in all parts of the country who have adopted and are using the Frictionless Empire with perfect satisfaction, after having tried and tested many other types of machines.

Our illustrated catalog describes it in detail. If you haven't one, let us send it.

CAPACITY AND PRICES

No. 1 A—	359 lbs. per hour.....	\$ 60.00
No. 1 B—	425 lbs. per hour.....	75.00
No. 2 B—	600 lbs. per hour.....	90.00
No. 4 B—	800 lbs. per hour.....	110.00
No. 6 B—	1000 lbs. per hour.....	130.00

Separator Oil

Price, qt., 35c; gal., 85c.

Dairy Thermometers

Price, 35c; postpaid, 45c.



Spray Pumps and Material

The Sampson Double-Acting Sprayer For Barrel or Tank

The "Samson", Fig. 663, is a powerful pump, having a large number of vantage points not found in other sprayers. We recommend this outfit where a large number of trees are to be sprayed and where a heavy pressure is desired.

The pump has an extremely large air chamber (18 gallons capacity), allowing the operator to pump and rest alternately. It has a long, well balanced lever, which is a great aid in pumping. The cylinder is brass-lined and all other working parts, including the ball valves and seats, are brass.

Having a differential plunger, an equal amount of work is done on both strokes, making it double-acting, which decreases the labor and increases the work done. All parts are easily accessible and the air chamber can be readily taken apart. There are no stuffing boxes in this pump.

The pump is furnished with one discharge Y, 8 feet of 1½-inch wire lined suction hose and strainer and pressure gauge. Shipping weight about 175 pounds.

PRICE LIST

Fig. 633, as illustrated and described, \$37.50.

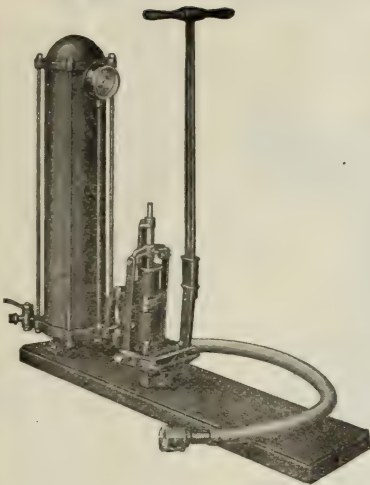


Fig. 663

The "Simplex" Barrel Spray Pump

A Popular Orchard Sprayer, With Mechanical Agitator and Brass Working Parts



Simplex Pump

THE MECHANICAL AGITATOR—Without an efficient agitator a barrel pump for orchard spraying is worse than useless in the application of the Bordeaux mixture and paris green. These two mixtures sink to the bottom of the barrel, and in order that the spraying may be uniform, a constant churning of the liquid is necessary. This can only be obtained by the use of the agitator here shown. With our agitator, uniform results are obtained. The working parts are made of brass, the cylinder being brass lined, the piston rod cased, and the plunger and valve solid brass. The discharge is provided with a Y connection, a tight cap being furnished for use in case but one section of hose is used. Three-way stop cock fits this pump, and customers preferring this stop cock on the discharge can order it separately at any time.

Price, pump only, \$9.00.

Spray Pumps

The Myers Improved Brass Barrel Spray Pump

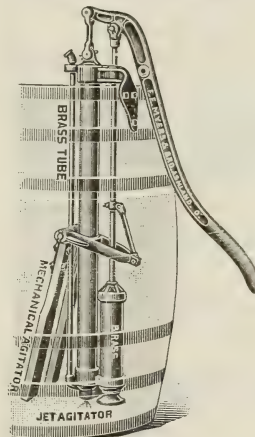


Figure 1198 illustrates a spray pump of a construction that is the very best in all its parts.

The construction is such that the entire pump sets inside the barrel containing the liquid, being bolted fast at its upper end to the barrel staves. By this arrangement the working parts are entirely submerged in the liquid thereby avoiding all possibility of losing priming, doing away with the necessity of suction pipe, placing the agitator in the bottom of the liquid in a simple form, and also doing away with a large amount of complicated parts. Has Bronze Ball Valves and Brass Seats; the plunger is brass, fitted with hemp packing. Will handle hot, cold or any caustic mixture.

The cylinder and discharge pipe are all brass. The air chamber is 30 inches in length, enabling the pump to throw a uniform, constant and elastic spray. It has a good leverage, is very powerful and easily operated.

Pump only, \$8.00.

The Success Bucket Spray Pump

All Brass Working Parts, with Indestructible Bronze Valves, Malleable Iron Combination Foot-Rest

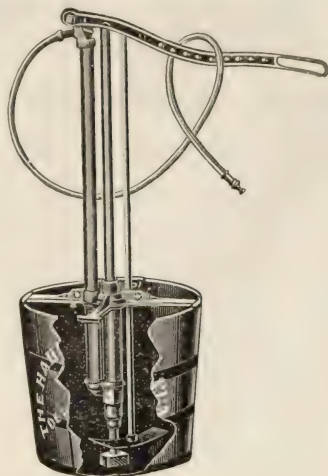


Success

Florists, gardeners, fruit growers and farmers who wish a durable, convenient spray pump at a low cost can find nothing better. This outfit is a most excellent one for ordinary use in gardens, vineyards and orchards; for washing windows and buggies and for the application of whitewash. The pump has a large air chamber and is double-acting, throwing a continuous stream either solid or in fine spray. It is provided with Bordeaux nozzle and four feet of discharge hose. Price, \$4.00.

The "Hardie" All-Brass Level Bucket Pump

This pump, as shown here, is a high-grade, all brass bucket pump, especially designed to meet the long-felt want in this line. It is the only bucket pump on the market that has a mechanical agitator, and that is so designed as to always stand in position in the center of the bucket. It can readily be detached from the bucket by unscrewing a nut on the spider. This new device for holding the pump firmly in place in the center of the bucket enables the operator to carry the whole outfit with one hand. As will be seen by the cut here shown, the bulk of the weight is below the top of the bucket even when the bucket is empty. With the old style foot rest, or pump fastened to side of bucket, one is continually in trouble. Our pump, as well as being held firmly in the center of the bucket, has a mechanical agitator passing directly in front of the strainer at every stroke of the handle as shown in cut. It should be remembered that it is just as necessary to have the liquid in a bucket well agitated as that in a barrel. The old style of agitating by means of a return stream from the bottom of the pump back into the bucket has been condemned by all who have used it.



The Hardie Bucket Outfit No. 10

Includes No. 4 Pump, one 5-gallon heavy wooden bucket, 3 feet best $\frac{1}{2}$ -inch hose, 1 spraying lance 18 inches long, 1 spraying nozzle. Price, \$7.50.

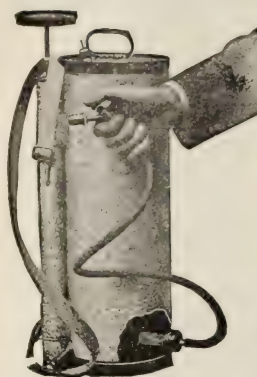
Inland Perfect Sprayer



A good, dependable sprayer will be found a necessity for using Conkey's Nox-i-cide, Lice Liquid, Fly Knocker, or any liquid disinfectant or insecticide. Inland Perfect Sprayer, while costing but very little, will be found very serviceable; will spray directly up, or in any direction, and we offer it as the best spray pump manufactured that can be sold for the same price. Price, 50c each, or 75c postpaid.

"Lightning" Compressed Air Sprayer

The new Lightning Compressed Air Sprayer is made of heavy galvanized iron or brass, holding about 4 gallons, and is provided with a brass safety valve to prevent overpressure, an adjustable shoulder strap with a snap at each end, 3 feet of the best hose and our automatic brass shut-off nozzle, which is held in one hand and worked at the will of the operator, by simply pressing the thumb a trifle, letting out an instantaneous spray, and by releasing the thumb the nozzle shuts itself off automatically, therefore the operator at all times has the spray under perfect control and there are no liquids wasted. It is also provided with our patent brass strainer, as shown in cut, so that no sediments can pass through the hose or nozzle, which prevents clogging.



Patented
Holds Four Gallons
Packed One in Case

There is no labor required to operate this machine; simply fill the tank about two-thirds full of liquid, pump in a few strokes of air and the sprayer will do the rest.

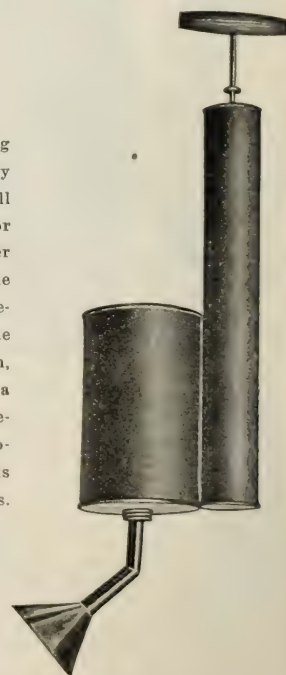
We can also furnish heavy brass extension pipe in three-foot lengths with connections, used for spraying trees. Full instructions on each machine.

Price, with galvanized steel body.....	\$5.50
With polished brass body.....	7.00
Three-foot brass rod .....	.50

"Lightning" Dry Powder Duster

Easy to operate, strong and durable, made of heavy tin, nicely painted. Will spray up or down, or straight ahead, also under the leaves of plants, as the funnels and elbows are reversible—simply work the plunger back and forth, when it will produce a large or small blast. Useful for exterminating potato bugs, currant worms and all sucking insects.

Price, \$1.00 each.



Dust Sprayers

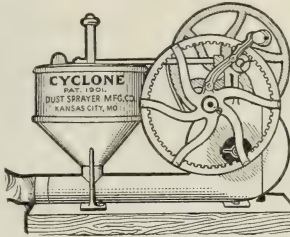
The principle of spraying to control insects and diseases on plant life is right. In practice the principle advocated and taught by our theorists is unsatisfactory, unpleasant, laborious and expensive. Principles and practice go together. The results from practice determines the correctness of the principle. A theory of orchard protection against insects and fungi is of no value until the practical grower has put his O. K. on it. The Dust Spray is championed by the successful practical growers, because it is satisfactory, rapid and easy of application, with a minimum amount of labor, and saves 75 per cent in spraying expenses.

Cyclone

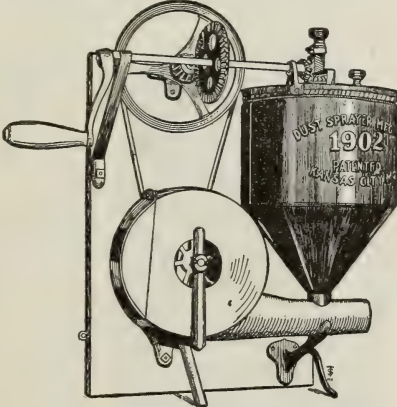
This is our hand power machine. The dust box holds 1 peck of dust, the machine uses 2½-inch air tube and 8 feet of 2½-inch spouting, our flexible joint, stand and fixtures, and our book of formulas are furnished free with each machine

Capacity—One horse and light wagon, and two men can spray from 25 to 40 acres per day, according to the size of the trees.

Price—Machine, 8 feet of 2½-inch spouting, 1 flexible joint, stand and fixtures complete, crated, \$27.00.



Portable Machine 1902



This machine is carried by the operator. The machine and its entire mechanism is securely fastened to a single back piece that is supported close to the body of the operator in front. It is held in position by combined shoulder braces and waist band, adjusted in such a manner as to throw the weight of the machine on the haunches of the operator.

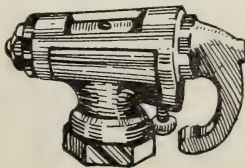
The dust box holds 1 gallon. It has the same feed attachment as the Cyclone, and guaranteed not to choke. The dust box, air tube, and fan shell are made from galvanized iron on exactly the same design as the Cyclone. It has 1½-inch air duct, and 6 feet of 1½-inch spouting, one flexible joint and one pair of combined shoulder braces with our book of formulas are furnished free with each machine.

Price—Machine, 6 feet of 1½-inch spouting, 1 flexible joint, and 1 pair combined shoulder braces, all complete and boxed, \$12.00.

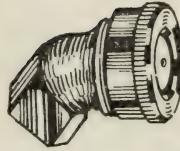
Bordeaux Nozzle

This Bordeaux Nozzle is a new pattern which eliminates the common objections to this type. The handle is built close down to the body and is shaped so as to avoid catching in the branches. This will be quickly appreciated by all users of this style of nozzle. The weight is also materially reduced without at all reducing the strength. The corners of the slot are cut away leaving plain straight faces which form a clean-cut spray without ragged edges.

Price, each, 75c; postpaid, 80c.



Angle Cone Spray Nozzle



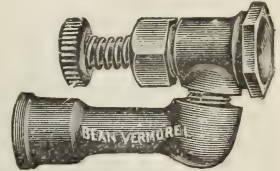
This has a very large capacity, and makes a perfect cone-shaped spray. This nozzle is built on an angle of 45 degrees, allowing the operator to spray up or down by simply turning the nozzle. **Price**, each, 75c; postpaid, 80c.

Vermorel Nozzle

The Vermorel Nozzle throws a beautiful, misty, circular spray.

All trouble caused by clogging in the bend is avoided by having the stem detachable. This also allows the nozzle to be turned to any angle desired.

Price, each, 75c; postpaid, 80c.



Double Vermorel Nozzle

Price, each, \$1.40; postpaid, \$1.50.

Triple Vermorel Nozzle

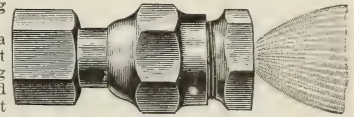
Price, each, \$2.00; postpaid, \$2.10.

Bean Best

"The Unequaled Cyclone Nozzle"

Throws a fine circular spray a long distance.

Bean Best is a marked improvement on our Cyclone Long Distance Nozzle and furnishes a perfect spray. There are no parts to catch on the limbs, and the nozzle is fitted with a steel cap, which does not cut out easily. A second cap with larger hole is also furnished with each nozzle. **Price**, each, 75c; postpaid, 80c.

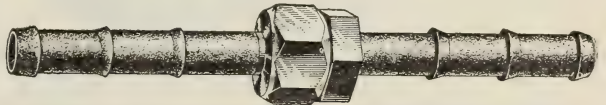


Bean Whitewash Nozzle

The Old Standby for Whitewashing

The nozzle throws a fine spray or a solid stream. It is particularly recommended for whitewashing and for washing buggies. Thousands of these nozzles are now in use and giving the best of satisfaction. To clean when clogged, turn the thumb screw straight out for an instant. **Price**, each, 75c; postpaid, 80c.

Spray Hose Coupling



With hexagon nuts and double length shank, so will not pull or blow out.
Price, per pair, 55c; postpaid, 60c
Female half only, 30c; postpaid, 35c

Hose Connection



To connect ¼-inch hose to spray rod. **Price**, each, 25c; postpaid, 30c.

¼ Nozzle Y

The Brass Y shown here will screw on on any spray rod, and all kinds of spray nozzles screw into the other two ends. This is intended for use when two nozzles on one rod are desired.

Price, each, 69c; postpaid, 65c.



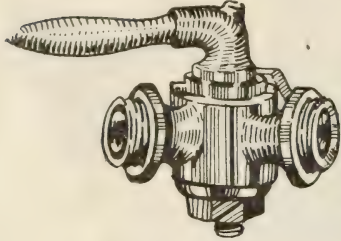


1/4 Nozzle Ell

It is very important to spray down into the blossom. This piece has just the right angle and screws onto the end of any spray rod. Then attach the nozzle.

Price, each, 25c; postpaid, 30c.

Three-Way Discharge Cock



This has a large barrel which allows it to cut off absolutely, and eliminates the trouble that has been experienced with inferior cocks.

Price, each, \$1.50; postpaid, \$1.75.

Spray Cut-Off

This 1/4-inch shut-off is for use on spray rods in place of globe valves. Shuts liquid off instantly, saving time and material. Can be put on any rod.

Price, each, 60c; postpaid, 65c.

Hose Reducers

These are for connecting a male hose coupling on end of spray hose to the spray rod. The two-piece connection has a swivel joint and is easy to attach. When the one-piece connection is used the entire rod must be turned in screwing on. Price, one-piece reducer, 20c.



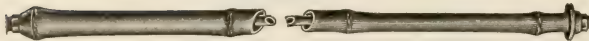
Spray Hose Clamps

Two of these clamps can be used on our long shank couplings and mender.

Price, each, postpaid..... 5c
Per dozen, postpaid..... 50c



Bamboo Extensions



The bamboo used in making our extension is a nice size to hold in the hands and is smooth and little affected by either heat or cold. We regularly fit them with 1/4-inch iron pipe, but can furnish 1/4-inch iron pipe without extra charge; 3/8-inch pipe is perfectly smooth, does not rust or corrode, and weighs only one pound to ten feet.

8-foot Bamboo Extension, with iron pipe, \$1.50; with aluminum pipe, \$2.50.

10-foot Bamboo Extension, with iron pipe, \$1.75; with aluminum pipe, \$3.00.

1/4-inch Extension Pipe Rod only, 5 ft., 60c; 8 ft., 75c; 10 ft., 90c.

Spray Hose

The troubles and expense caused by poor hose are many. This is especially so since the pressure carried in power pumps is practically doubled. We list only two grades—a 5 and 7 ply hose. Garden hose is usually made of thin sheeting, and the inner tube of a cheap rubber compound.

Our 7-ply hose is constructed of 7-ply duck, with a high grade of rubber friction suitable to withstand heavy pressure and especially adapted for power pumps. The inner tube is also especially made to withstand the actions of the different chemicals used in spraying. Our 5-ply hose is similar to the 7-ply, the difference being in two less plies of the duck. This hose is adapted for hand pumps only. Sold in lengths of 12 1/2, 25 or 50 feet only.

Price—Tye Brand, 7-ply, per foot..... 20c
Price—Shower Brand, 5-ply, per foot..... 15c
Hose Washers, 1/2-inch rubber, doz..... 10c

SPRAY MATERIALS AND INSECTICIDES

For Destroying Insects, Scale, Etc.

The Two Greatest Fruit Tree Sprays

Lime and Sulphur Solution

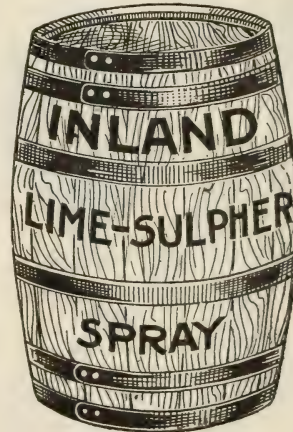
and

Arsenate of Lead

The secret of successful spraying lies in knowing and judging the correct time based on climatic conditions. Certain locations are much warmer and earlier than others; more advanced. Owing to this fact orchardists must watch these conditions and use their judgment as to when to spray for the different diseases.

Kindly bear in mind this very important fact that thoroughness in spraying is one of the main points. Many failures can be traced to the lack of thoroughness.

It is also important that the orchardist should become familiar with the name and character of the disease he is to spray for. If the disease is not known apply to your inspector for information. Specimens of diseased fruits or leaves, or other portions of trees or plants, may be forwarded to your state experiment station at no cost, where a careful microscopical examination will be made and the disease identified.



LIME AND SULPHUR SOLUTION makes for better fruit. It means a big earning power. It is a true calcium sulphide—a true calcium sulphide means a perfect chemical combination of lime and sulphur, absolutely free from all sediment, absolute uniformity which guarantees the same identical treatment as to strength and effect tree for tree, and which allows the wash to be applied to delicate bud life, blossom condition and foliage as well as the dormant tree, without injury or setback, both for fungicidal and insecticidal troubles as well as San Jose Scale, Oyster shell Bark Louse, Moss, Apple and Pear Scab, Slug Worms, etc.

The wide range of disease that fruit trees are subject to that it will control, prove it to be the best general fruit wash the world has any record of.

Directions

For any Scale Insects, or Bark Louse, Moss, Lichens, Green Aphis, or Red Spiders, use one part with ten to twelve parts water: spray when leaves are off the trees.

For Bud Moth, Peach Twig Borer, Woody Aphis, Peach Leaf Curl, Peach Mildew, Apple Mildew, Grape Mildew, use one part to ten or twelve parts of water; spray when buds are swelling.

For Apple Scab and Peach Scab, use one part with fourteen of water; spray just before blossoms open, again as soon as blossoms fall.

For Black Spot Canker, use one part with ten parts water; spray as soon as the leaves fall, repeat in two weeks.

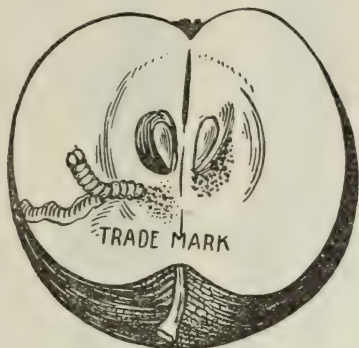
In using as a summer spray, use one part with twenty parts water.

Price, gallon, 75c; 5 gallons, \$2.25; case, \$4.25; barrel, \$11.00; 5-bbl. lot, \$10.50 bbl.

To All Poultry Raisers

Of Great Importance—Lime and Sulphur Solution diluted 1 to 5, one gallon to five gallons of water for spraying your poultry house for destroying Lice, Mites and Vermin, will outclass any other product for like purpose on the market, and is sprayed for one-tenth the cost.

GRASSELLI'S ARSENATE OF LEAD PASTE



The superior qualities of this article as an insecticide are already well known. A few words upon this point, however, may not be out of place.

As the name implies, Arsenate of Lead is a chemical combination of lead and arsenic. The arsenic is the poisoning agent. The lead serves two purposes—it acts as a binder, holding the arsenic upon the foliage and forms a strong chemical union with the arsenic, reducing to the minimum soluble arsenic, which causes foliage injury.

Grasselli Arsenate of Lead-Paste contains 15 per cent arsenic oxide, combined with the maximum amount of lead consistent with good mixing qualities. It contains less than $\frac{1}{4}$ of 1 per cent soluble arsenic and will not injure the most delicate foliage when used according to directions.

GRASSELLI ARSENATE OF LEAD

Kills all leaf-eating insects. Does not injure the foliage. Mixes readily with water. Sticks to the foliage.

Grasselli Arsenate of Lead conforms to the most rigid requirements of National and State Laws governing the manufacture and sale of insecticides.

Prices—One lb., 25c; 5 lbs., \$1.00; 10 lbs., \$1.40; 20 lbs., \$2.50; 50 lbs., \$5.50; 100 lbs., \$10.50.

Winners of the Capital prize for our National Apple Show for 1908, 1909 and 1910 used Grasselli's Arsenate of Lead.

"ORTHO 40"

"Ortho 40" is a combination of zinc arsenite, containing over 40 per cent arsenious oxide in combination. It is a white, fluffy powder. It comes in sealed paper cartons, containing $1\frac{1}{2}$ pounds, which is sufficient for 150 gallons. It has been used by various Experiment Stations, and been recommended by them. Growers throughout the North-west and California have used it with remarkable success.

Price, per pkg., 30c; postpaid, 65c.

"BLACK LEAF 40"

A Concentrated Solution of Nicotene- Sulphate (Poison)

For the convenient information of those desiring to employ "Black Leaf 40" for spraying fruit trees, vegetables, etc., the following suggestions are made:

Against sucking insects, such as Green and Woolly Aphis, Pear Psylla, Grape Leaf Hopper, Pear Thrips, etc., 1 part "Black Leaf 40" to about 900 or 1000 parts water.

Against more resistant plant lice, such as Black Aphis and Rosy Apple Aphis, 1 part "Black Leaf 40" to about 500 or 700 parts water.

To obtain best results, use strong pressure whenever practicable, particularly against insects having a waxy covering, or to penetrate opening buds.

The addition of one or two pounds of any good laundry soap, or of Whale Oil Soap, to each 50 gallons of water is often very advantageous, lessening the formation of drops, and causing the spray to cover surfaces more in the form of a thin film; also to give better penetration. When using, dissolve the soap in the water before adding "Black Leaf 40."

Price, $\frac{1}{2}$ -lb. tin, by express or freight, 85c.

Price, $2\frac{1}{2}$ -lb. tin, by express or freight, \$3.25.

TREE TANGLEFOOT

To protect trees against climbing insect pests in a simple, economical and effective way, use Tree Tanglefoot—a sticky substance applied directly to the bark of trees. One application remains sticky three to four months fully exposed to the weather. Easily applied with a wooden paddle. One pound makes a band 8 to 9 feet long. No mixing, always ready for use.

Will not injure trees. Is far superior to burlap bands, which require daily inspection to give partial protection, whereas Tree Tanglefoot bands require only occasional inspection to give absolute protection.

Price, 1-pound can\$0.30

Price, 3-pound can85

FORMALDEHYDE

A Sure Preventive for Smut in Grain

This has proved to be much better than vitriol, etc., for treating grain to prevent smut. Also potatoes for blight and scab. Formaldehyde is sold by the pound; one pound is sufficient to treat 40 to 50 bushels of grain. Price, 1b. bottle, 40c; cannot be sent by mail.

BLUESTONE—Market price. Use 1 lb. to 5 bu. of grain.

Grafting Wax

One-half lb., 30c; 1 lb., 55c postpaid.

Beeswax

This is run in pound casks and is pure. Price, 75c postpaid.

Hydrated Lime

Used with Paris Green for dust spray mixture. Price, per 40-lb. sack, 75c.

Paris Green

Poor Paris Green is dear at any price. The brand we handle is warranted strictly pure and will comply with state laws. Effective against all chewing insects. One-lb. pkg., 40c; 5-lb. pkg., \$1.75.

Whale Oil Soap

Used as a summer spray for hop louse and green aphids. One lb., 10c; 100 lbs., market price.

Quassia Chips

Used with Whale Oil Soap for lice on cabbage, cauliflower, etc., and on fruit trees. Lb., 10c.

Hellebore

Especially used for destroying turnip, currant, and gooseberry worms, larvae of sawflies, etc. One lb., 40c.

Kerosene Emulsion

Will kill sucking insects. One qt., in tin cans, 60c; 1 gallon, in tin cans, \$1.50.

Hammond's Slug Shot

For destroying slugs, cabbage and turnip flea, currant worms, etc. Per lb., 15c; postpaid, 35c; 5-lb. pkg., 60c.

Hammond's Grape Dust

To prevent mildew on roses, grapes and gooseberries. Per lb., 15c; postpaid, 35c; 5-lb. pkg., 60c.

Tobacco Dust

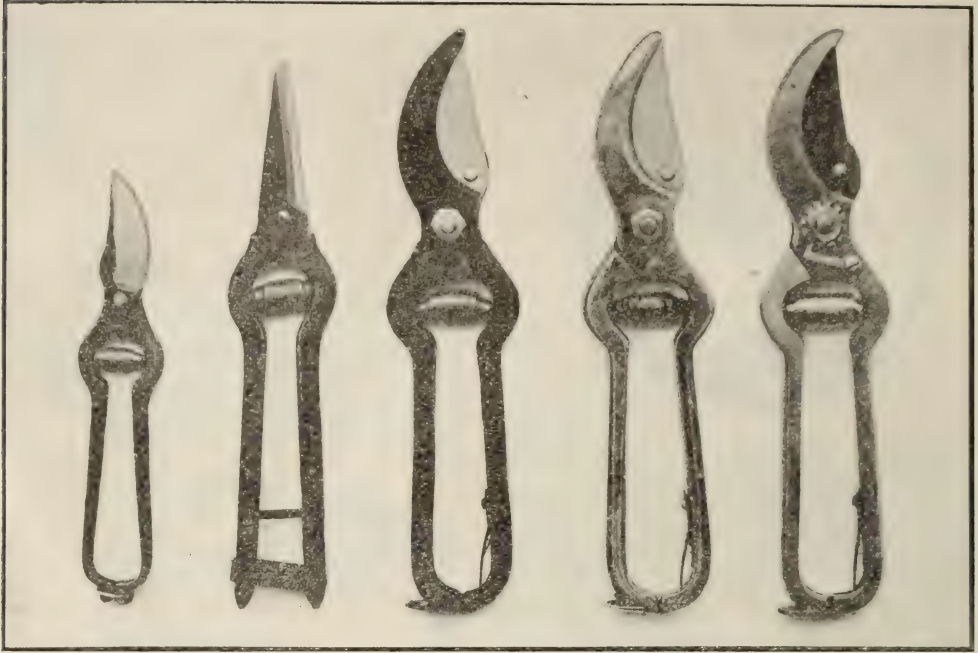
One of the best remedies for green and black aphids, fleas, beetles. Price, 1 lb., 10c; 10 lbs., 75c.

Sulphur

Powdered, lb., 5c; 100 lbs., market price.

Bluestone

Used successfully in winter sprays. Per lb., 15c. If wanted in 100-lb. or barrel lots, market price.



No. 1

No. 2

No. 3

No. SOS

No. 888

NOTE—Compare numbers on cut to those in description.
 No. 1—Length 6½ inches, black handle, polished blade; fine for trimming roses or thinning fruit. Price, 30c; postpaid, 40c.

No. 2—Length 7½ inches; an extra good tool for thinning fruit. Price, 35c; postpaid, 45c.
 No. 3—Length 9 inches; California pattern, black finish, volute spring. Price, 75c; postpaid, 90c.



No. 6

No. 7

No. 8

No. 9

No. 10

No. 11

NOTE—See numbers in description.

Pruning Knives

No. 6—Polished wood handle. Price, \$1.00.
 No. 7—Plain wood handle. Price, 75c.
 No. 9—Budding and pruning knife: horn handle, best steel blades. Price, \$1.00.

Grafting Knives

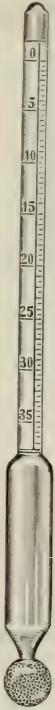
No. 8—Plain wood handle, stationary blade, razor or steel; made by Maher & Grosh. Price, 40c.

Budding Knives

No. 10—Ebony handle, ivory, bark opener. Price, \$1.25.
 No. 11—Horn handle, stationary bark opener. Price, 75c.

Sulpho Tobacco Soap

A sure, immediate and convenient exterminator of all insect life and vermin on plants, shrubbery, vines, small fruits and trees. Non-poisonous and absolutely safe to handle. It will not injure the tenderest growth. A powerful fertilizer, reviving plants wilted from the ravages of insects. Pkg., 15c and 30c postpaid.



SYRAYOMETER

The LimeSulphur wash for spraying has become recognized by the orchardists as one of the best and most economic remedies for numerous forms of disease, fungi and insects, injurious to fruit trees.

In making up this wash there are two operations; first, making the concentrated solution from lime, sulphur and water, if the product is to be home made; and the second diluting for use in spraying the trees.

It is necessary in each of these to know the strength or weight of the solution, and the only practical way of ascertaining this is by means of a Hydrometer. The Hydrometers made for this purpose are known as "Sprayometers." It is practically impossible for the fruit grower to be without one, at least, as in all the methods used for obtaining data for the making of the wash, readings referred to the Hydrometer will be found. In selecting these instruments consideration should be given to the fact that only the most accurate will give the best results, and that "Taylor-Rochester" is a synonym for accuracy. Price, \$1.00; postpaid, \$1.10.

Edgemont Lid Press



All fruit growers sooner or later feel the need of a good,

durable and handy **LID PRESS**. In offering the Edgemont to the public we are confident that it will fill a long-felt want. It is the result of several years' experimenting, with the view of embodying in a single machine qualities making it easily the best on the market.

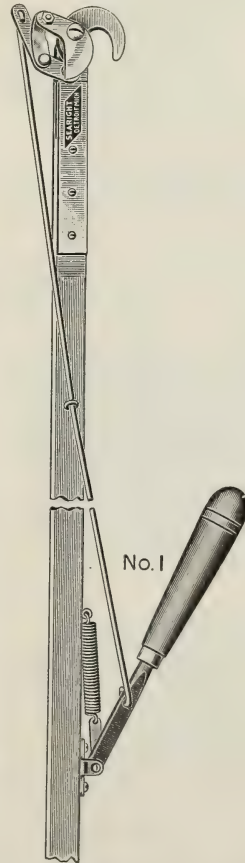
SAVING TIME is just as essential in the packing house as it is in the shop or factory. A number of the special features of the Edgemont Lid Press are time savers, which are quickly appreciated by the user. The stripper nail box delivering the nails all points down; the placing of the lids in position endwise by the clamping yoke; the little spring attachment holding the cleat in place, all tend to make nailing an easy, quick and simple operation. Price, \$12.50.

Searight Pruning Tools

This year we have taken up the line of Searight Pruning Tools, believing them to be the best line on the market.

Not one single piece of casting of any description is used in making these pruners. All hooks, metal handles, etc., are forged from steel, which should be sufficient guarantee as to its quality. All other metal parts, not necessary to be made of forgings, are cold rolled sheet steel. They are not cheap, nor built for cheap trade. Cheapness and quality seldom go together, yet they are cheap when quality, service and satisfaction are considered. These tools therefore are produced and offered to the public at as low a price as class and quality will permit.

No. 1. Extension Tree Trimmer



No. 1 has a compound lever head and is made with a hook and side lever. It is calculated for heavy work and will cut a limb up to 1¼ inches in diameter. Instead of running the rod connecting the knife lever along one side the pole to a handle lever, we have placed the handle lever on the opposite side, which allows the rod to cross the pole. (We have a patent pending on this feature.) As a result one-half the strain is thrown on one side of the pole and one-half on the other, which gives about double strength, and instead of the pole warping and bending, it has a tendency to remain straight and stiff. We recommend No. 1 trimmer in lengths exceeding 10 feet as the compound leverage relieves the strain on the pole.

The strength, durability and easy cutting qualities of these trimmers will appeal to both the merchant who handles them, and the man who may have the pleasure to use them. Each trimmer is fully warranted.

No. 888. Plain Hand Pruner

This pruner will be found second to none in easy cutting qualities, material and workmanship. It is placed on the market to meet the wants of those who wish a thoroughly good tool.

No. 808. Same as No. 888 but not polished. (For cut see page 42.)

No. 777. Two Hand Pruner



No. 777

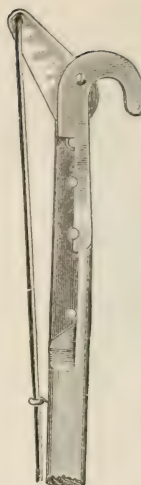
Our No. 777 is designed on scientific principles and is the result of several months' study and experimental work.

Because of the fact that the majority of men are right handed, we have placed the blade on the opposite side from the general custom.

This permits the blade to be placed next to the body or main limb of the tree with the hook handle held in the left hand, while the right hand operates the blade. It may be readily seen with this arrangement that the hook remains stationary while the blade closes, instead of the blade being held stationary while the hook closes by twisting around the branch wounding the bark. It has other strong features, as follows.

The blade positively will not cut or dig into the hook. The blade will not push the branch from between it and the hook. By dropping the hook considerably below the center line we have produced a positive draw cut superior to any other, with an opening between blade and hook allowing a straight thrust at the branch.

No. 707 two hand pruner is the same pattern as No. 777, with shorter handles, but without the finish.



No. 20

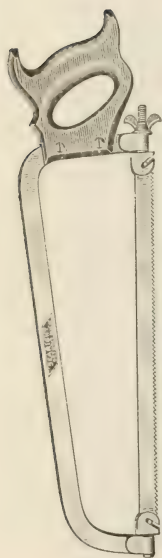


No. 10

Waters' Long Handle Tree Pruners

No. 20—Indispensable in pruning tall trees. (See cut No. 20.) Cannot go by mail. Purchaser will have to pay freight or express charges. Price, 6 ft., 75c; 8 ft., 90c; 10 ft., \$1.00; 12 ft., \$1.15; extra blades, 15c each.

No. 18. Hand Pruning Saw



No. 18

In order to make our line of pruners complete, we have added a bracket hand pruning saw, with a blade so arranged as to be turned instantly to any angle.

This type of saw is the most popular because it is light, is capable of being used at any angle with practically no danger of breaking or buckling the saw. It will cut rapidly, make a clean cut with no danger of wounding the bark. This type of saw is becoming very popular wherever used. No orchard kit of tools is complete without a saw of this type.

PRICES OF SEARIGHT PRUNING TOOLS

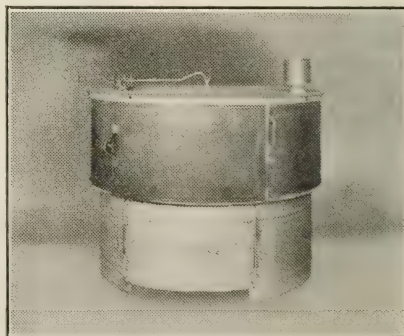
No. 1—Tree Pruner, 8-ft. poles	\$3.00
No. 1—Tree Pruner, 10 and 12-ft. poles	3.25
No. 888—Plain Hand Pruner, 9-inch, \$1.60; postpaid	1.85
No. 888—With Extra Blade, 9-inch, \$1.75; postpaid	2.00
No. 808—Hand Pruner, 9-inch, \$1.00; postpaid	1.25
No. 777—Two Hand Pruner, 26-inch handles	2.00
No. 707—Two Hand Pruner, 24-inch handles	1.35
No. 18—Hand Pruning Saw	1.75

Duplex

See Cut No. 10

A double-edged saw, with fine teeth on one side and coarse teeth on the other. Can also furnish this with teeth on one side only. Price, 75c.

The Keeler Hot Water Incubator



The most natural hatcher. Works just like nature. Absolutely fire-proof, made of metal. Hatches in most natural way; heats evenly all over the egg chamber because there are no cold corners to contend with. Heat is radiated from all points, top, bottom and sides. Moisture is supplied through fresh air inlets. The exposed surface of this incubator is a wall of water, a draft of air has no effect on it. Capacity, 120 egg. Price, \$17.50.

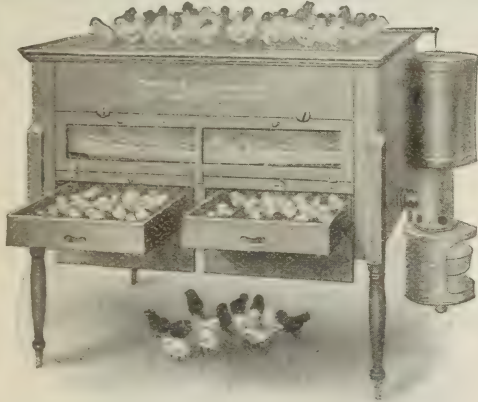
We have a full line of Spray Material. See pages 40 and 41.

Incubators and Brooders

We Are Authorized Agents for
**GENUINE STANDARD CYPHERS
INCUBATORS**

Patented

(Look for Trade Mark—Demand the Label)



No. 3

Fire-Proofed, Insurable, Self-Ventilating, Self-Regulating,
Non-Moisture, Efficient, Durable and
Positively Guaranteed

Practical poultry raisers who mean business and desire the greatest possible success should look for and demand the qualities that have made Cyphers Incubators world famous.

To own a Cyphers is to have an incubator that stands first, not only because it has affixed to it the fire insurance label granted by the National Board of Fire Underwriters and bears a world-wide reputation, but because of the well-established fact that it is the best hatcher of large, vigorous, livable chicks. It is positively guaranteed to out hatch any other make of incubator under widely varying conditions, season after season, and to last ten years without repairs.

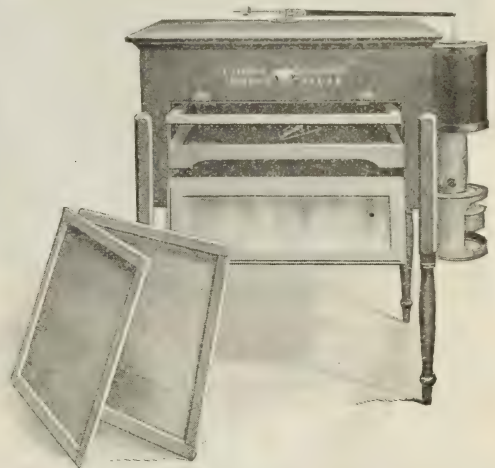
For 1912—We offer our customers the Cyphers Company's complete line of incubators and brooders—the best on the market. For years the Cyphers Incubator has been consistently improved, always maintaining its leadership, until today it represents all that is most efficient, convenient and reliable in incubator construction.

The principles of construction that have made Cyphers Incubators "the world's standard hatchers" for the last twelve to fifteen years remain unchanged in the 1912 pattern. Their patented features, their entire freedom from the bothers, disappointments and losses common to the "cheap" or "bargain" incubator, make these high-class machines the best for you to own first, last and all the time. They are used with unequalled success in all parts of the civilized world, under every practical condition by men and women in all walks of life. They are money savers and money makers for poultry raisers who "mean business"—for men and women who want a real incubator with which to get out of poultry keeping all the profit and all the pleasure there is in it.

CYPHERS INCUBATORS have now been on the market fifteen years and today are used by more Government Experiment Stations, on more large, practical poultry plants, on more successful duck and egg farms and by a larger number of foremost poultry breeders than all other makes combined. For proof of these statements send us for a copy of Cyphers Incubator Company's latest complete catalogue—1912 edition—now ready for mailing, free on request. Book, 7½x10 inches.

EVERY STANDARD CYPHERS INCUBATOR IS GUARANTEED by the manufacturers to do first-class work in the hands of every purchaser who will give it a fair trial and we hereby place our guarantee back of theirs. In buying a Cyphers you take no chances. Persons who earnestly desire to succeed in the poultry business should

have the right tools with which to work. Write us today for free illustrated catalogue telling all about these superior hatching machines.



NO. 1 STANDARD CYPHERS INCUBATOR, 1912 PATTERN—Fire-proofed, insurable, 144-egg capacity. Showing "split" lower diaphragm removed, egg tray and upper diaphragm partly drawn out. Price, \$25.00.

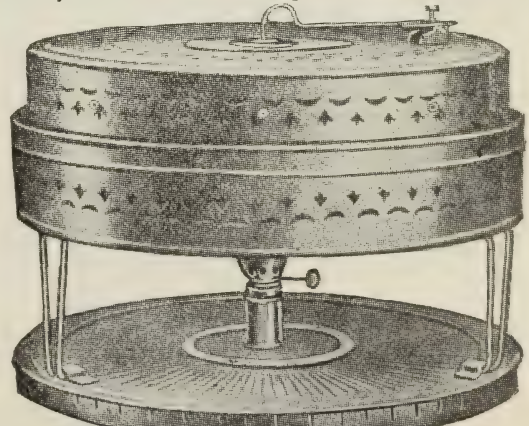
SIZES AND PRICES OF CYPHERS FIRE-PROOFED INCUBATORS

FREE ON BOARD CARS, SPOKANE, WASH.

No. 0 Holds 70 Hen Eggs.....	\$17.00
No. 1 Holds 144 Hen Eggs.....	25.00
No. 2 Holds 244 Hen Eggs.....	35.00
No. 3 Holds 390 Hen Eggs.....	42.00

The Cycle Hatcher

The Cycle Hatcher is designed to take the place of the hen and supply the wants of beginners in poultry raising or many that do not wish an expensive outfit. These ma-



chines hold 50 eggs and are so constructed that the supply of heat comes from the center and is radiated in all directions like the rays of the sun, carrying with it an abundant supply of fresh, heated air, that is required to travel only six inches to reach every egg in the extreme portions of the nest. The heat is governed by a double wafer regulator that is placed so close to the eggs that it is sensitive to the natural heat of the growing embryo chick in the egg as well as the supplied heat from the lamp. The Cycle Hatcher is too simple in construction to require any long description of details, as the cut of the nest and complete machine show practically all there is to it. Price, complete, \$7.00.

For Hot Water Incubator, see page 44

Brooder-Hatcher



This combined Hatcher and Brooder is the result of many years' experiments to bring about desired conditions, making one lamp do double duty, and at the same time to have a machine constructed in a way to do successfully the work artificially, and at the same time to carry out the natural laws of incubation and brooding.

It is the machine that has made it possible to get such large returns from a few hens in the Philo System plant. Just as good results may be had with this machine by setting a few eggs every day, once each week, or filling the machine half full of eggs and every ten days putting in a new supply, thus taking off a hatch every ten days or oftener, then filling in the empty portion of the machine with fresh eggs. Price, \$9.00.

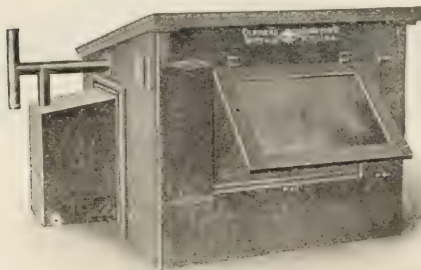
We Are Authorized Agents for STANDARD CYPHERS COMBINATION BROODERS AND COLONY ROOSTING COOPS

For 1912—Cyphers Unequaled Apartment Brooders and Combination Roosting Coops have the same important advantages over all other makes that are possessed by Cyphers Company's 1911 incubators, in that they are fire-proofed and insurable, having the first fire insurance inspection label ever granted on a brooder.

Cyphers 1912 Brooders, every size and style, are self-regulating, self-ventilating and varmint proof. The outdoor styles are useable also as colony coops for the growing chicks. They are easily and quickly converted into colony roosting coops by simply taking out the hover, which is made removable for that purpose.

Cyphers Style A Outdoor Brooder Fire-Proofed—Insurable

Two-Apartment, Combination Outdoor Brooder and Colony Roosting Coop, Self-Ventilating and Self-Regulating



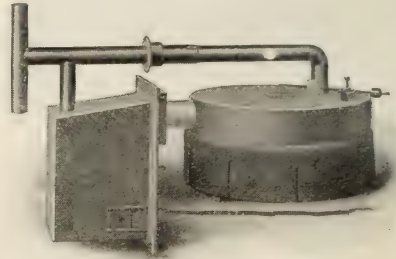
This double use of the Cyphers Brooder means a considerable saving of money. It makes a safe and comfortable enclosure for the young chicks at night and saves the buying of a coop for them. These outdoor brooders, on account of their fire-proof construction, can be used in-

doors, although we supply a special brooder, Style D, for indoor purposes. All Cyphers 1912 Brooders, both outdoor and indoor, contain either two or three apartments. The popular Style B (shown in illustration herewith), contains three apartments—first, roomy space under the hover; second, hover chamber; third, well-lighted exercising apartment. It has often been said by users of the Cyphers Brooders that they mother the chicks better than a hen.

An important reason for this is found in the great practical advantage possessed by the entire line of Cyphers Brooders for 1912 in their self-regulating feature. For years the self-regulator was attached only to the highest priced Cyphers Brooder (Style C), but it was so well received that now it is attached to all the Cyphers Company Brooders. It automatically regulates the heat in the brooder underneath the hover at all times, whereas in brooders without a regulator the heat has to be governed by a continuous watching of the lamp and turning the wick up or down whenever more or less heat is required.

All Metal Adaptable Hover

Self-Regulating and Bears Insurance Label as
Separate Device



In addition to this unequaled line of brooders, we offer separately the Cyphers Company's world's challenge Adaptable Hover. This machinery-made, all-metal, guaranteed fire-proof heating and brooding device is suitable to be used anywhere that heat is required for brooding chicks or ducklings. It can be used in a roosting coop, colony house, shed, hen house, barn or other building with or without any additional enclosure for the chicks, or in a large goods case or organ or piano box.

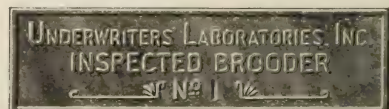
Is pronounced by thousands of users to be the best device thus far invented for heating home-made brooders. Recommended especially for use in long brooding houses, one hover for each pen. Adaptable hover is complete in itself, bears insurance label as a separate device, and is safe to use anywhere. Weight, boxed for shipment, only 40 pounds.

Complete Catalogue for 1912 contains fully illustrated description of this self-regulating, fire-proofed hover, also of the entire line of Cyphers Apartment Brooders.

SIZES AND PRICES OF CYPHERS ADAPTABLE HOVER AND COMBINATION BROODERS FREE ON BOARD CARS, SPOKANE, WASH.

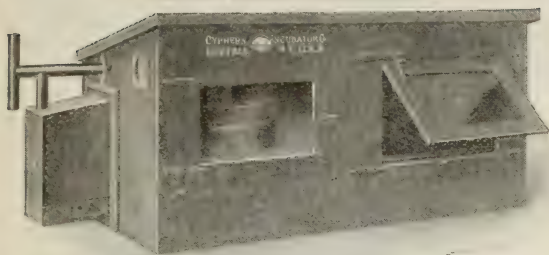
Adaptable Hover, capacity 75 Chicks.....	\$11.50
Style A—Two-Apartment Outdoor Brooder, capacity 75 Chicks	\$16.00
Style B—Three-Apartment Outdoor Brooder, capacity 100 Chicks	21.00
Style D—Three-Apartment Indoor Brooder, capacity 75 Chicks	15.00

Demand This Label—Your Safety



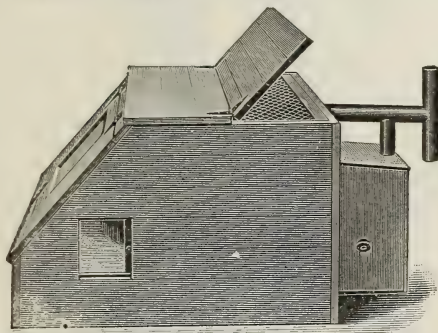
Form of Brass Label to be Found (in Serial Number) on
Every Cyphers Brooder—All Sizes

Style B Outdoor Brooder Fire-Proofed—Insurable



Three-Apartment, Combination Outdoor Brooder and Colony Roosting Coop. Self-Ventilating and Self-Regulating. Floors of Hover and Exercising Apartments on Same Level

Cyphers Style D Indoor Brooder



Style D

This brooder is practically the same in all respects as the Style A Outdoor type, except that the upper half is more convenient in shape and construction for indoor use. This brooder is for use in any kind of building where chicks may be kept, including rooms in dwellings, or suitable places in barns, sheds, or ordinary poultry houses. This brooder, being without an exercising apartment, should be used in rooms or enclosures in which the chicks can exercise freely during the daytime, or in poultry houses equipped with pens to be used by the chicks as runways.

Galvanized Lampless Brooder.

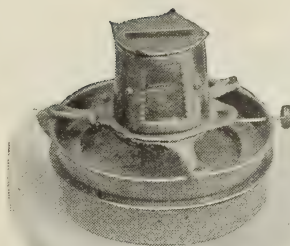
These brooders are round and lined with the best quality of water-proof, non-conducting material to retain the heat and make them easily cleaned. The cloth cover is attached to a wire frame and is adjustable to any height, that they may be easily raised as the chickens develop. There is a mattress or quilt three inches thick, filled with finely picked non-conducting material, a combination of wool and cotton, which makes the very best quality of heat-retaining material for the lampless brooders. This quilt is laid on top of the adjustable cloth cover and retains the heat in a manner which has enabled us to raise chickens without lamps in a temperature below zero. Price, each, \$3.25.

The Philo System

The new book, The Philo System of Progressive Poultry Keeping, gives full particulars regarding wonderful discoveries with simple, easy-to-understand directions that are right to the point and fifteen pages of illustrations, showing all branches of the work from start to finish. Price, \$1.00.

We take subscriptions for the Reliable Poultry Journal. Price, 50c per year.

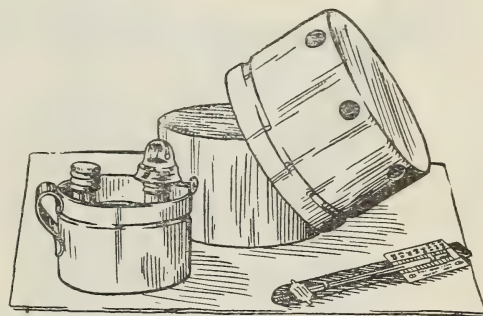
Cyphers Brooder Stove



Stove Complete, Ready for Use

The safety water pan of the Cyphers Safety Brooder Lamp holds nearly a quart of water, and extends out over the entire surface of the oil bowl, thus placing a sheet of cold water one inch in thickness between the oil bowl and the flame jets. By this arrangement all danger from the generation of explosive gases arising from the top of the lamp, or the burner becoming heated, is removed. Thousands of these have been sold to persons who build home-made

brooders and they give general satisfaction. Height, seven and one-half inches; greatest width, ten and one-half inches. Price, \$2.25.



Common Sense Brooder Fixtures

To those who wish to make their own brooders, we highly recommend the "Common Sense" fixtures. Hundreds of poultry men are using them and some of them have 15 to 20 set. These fixtures include an upper and lower drum, Inland Safety Lamp and Thermometer. The construction of the brooder is simple and the air circulation perfect. For outdoor use the walls should be double and the roof inclined and covered with roofing.

MANNER OF CONSTRUCTION—First, put in a tight floor 9½ inches from the bottom of brooder. Then mark and saw out size of large drum on this floor (using drum as pattern), 12 inches from center of side of brooder, to center of drum. Secure drum in place, then nail one-inch cleats two feet square under and around the drum, cutting out a two-inch hole from cleat and side of brooder to allow air circulation. Nail the lower drum up on these cleats. Bore sufficient holes through two sides of brooder, under this floor, to carry off fumes and furnish air for lamp. For the hover nail thin boards together, making it two feet square. Around this tack oilcloth wide enough to reach floor when hover rests on drum. Set the lamp under center of drum. Be sure and keep the receptacle on top of lamp always filled with water as this prevents overheating and explosion. Price, \$3.50.

X-Ray Egg Tester



X-Ray Egg Tester is made of the best black tin and consists of a central cylinder or lamp flue, 5¼ inches high, with an outside diameter of 2½ inches at the base and 2½ inches at the top. It is designed for use on an ordinary hand lamp, fits over any style of burner with a diameter approximating that of the tester. In a dark room the light will be found strong enough to penetrate the shell and illuminate the interior of the egg. Price, 35c each; post-paid, 50c each.

Safety Brooder Lamp



Inland Safety
Brooder Lamp

The latest and best lamp for the brooder; requires no chimney; never smokes, but burns a steady flame. The air fingers carry fresh air direct to the flame. This gives perfect combustion and more heat for a given amount of oil than with any other burner. A water chamber is on top of lamp to keep oil and burner cool, and prevent any chance of explosion. Price, \$1.00.

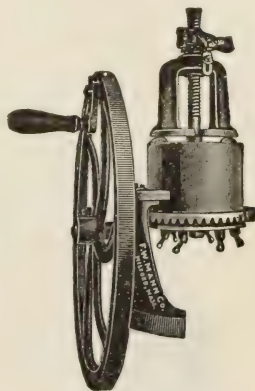
Lamps and Extras

Large Lamp for Incubator and Brooder.....	\$1.10
Small Lamp for Incubator and Brooder.....	1.00
No Chimney Burners with Collar.....	.50
No. 1 Burners, postpaid.....	.30
No. 2 Burners, postpaid.....	.40
No. 3 Burners, postpaid.....	.50
No. 1 Chimneys, postpaid.....	.25
No. 2 Chimneys, postpaid.....	.30
No. 3 Chimneys, postpaid.....	.35
No. 1 Wicks, postpaid, per doz.....	.20
No. 2 Wicks, postpaid, per doz.....	.20
No. 3 Wicks, postpaid, per doz.....	.25

Mann's Green Bone Cutter

MANN'S NO. 5 B—Has four knives, large cylinder, and has the latest patent (automatic governing spring feed) which makes it one of the best. Price, \$10.50.

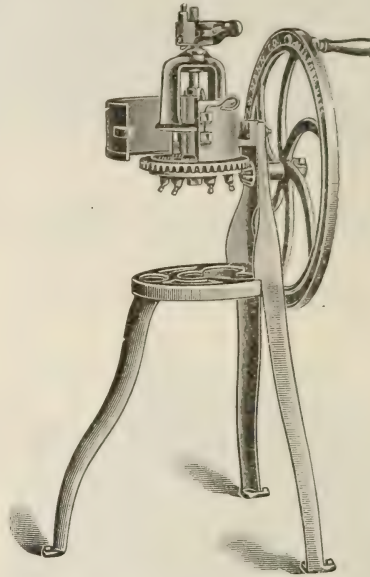
NO. 5 B. M.—Mounted on iron stand, no expense to set it up. Place for pan to catch the bone. Patented automatic governing spring feed. Cylinder, 6 inches diameter, 4 inches deep. Cutter plate has four knives instead of three. Will cut faster and easier than other types costing twice as much. Weight, 85 pounds. Price, \$14.00.



No. 5 B

MANN'S NO. 7—The New No. 7 is mounted on strong iron stand, and has patent automatic governing spring feed. Large, open-hinged cylinder giving instant access to all working parts; has six knives, gear guard, anti-clog device, heavy balance wheel and other improvements. (See cut.) Price, \$15.50.

MANN'S NO. 7½—Adapted to run either by hand or by power, without any change. The particular advantage of the No. 7½ is that while it is a complete power machine, it can be operated by hand just as easily as the No. 7. Thus, it is always ready for use. It is recommended even if you have no power at present, for should you get power in the near future, you need be at no further expense. Price, \$21.50.



No. 7

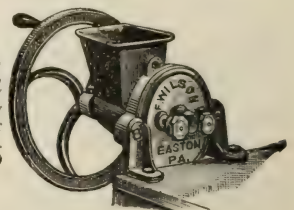
Black Hawk Mill



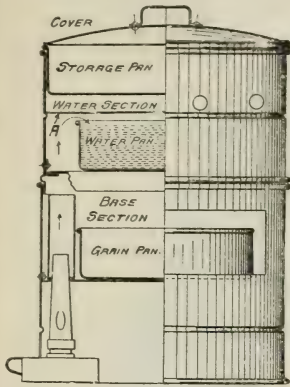
WITH A BLACK HAWK MILL in the house you crack the corn or grind any kind of grain to whatever degree of fineness you desire or whichever will best suit the use or condition of your chickens. Its wide range of usefulness, its durability and small cost will appeal to the family in town with a small flock in the back yard, and it has a large enough capacity to meet the needs of those in the country who keep poultry on a big scale. Price, \$3.00.

The Wilson Dry Bone Mill

No. 1 is a practical mill, grinding all kinds of shells, crockery, grit, burnt or dry bone feed, etc. Instantly adjusted to grind coarse or fine. Weighs 33 pounds. Diameter of hand wheel, 20 inches. Price, \$5.00.



Hohnbach Process Automatic Grain Sprouter



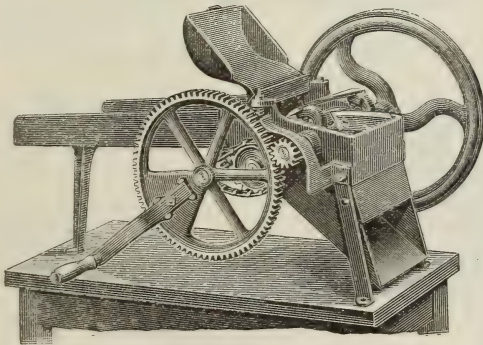
Made of galvanized iron, reinforced with $\frac{1}{4}$ -inch steel rods and of mechanical design and workmanship—makes it neat, attractive, durable and fireproof.

Made sectional—enables one to increase its capacity any time at a nominal cost. This design, places the Hohnbach Sprouter in a class by itself and must appeal to every poultryman large and small, as a most desirable feature.

Tender, juicy and ready to feed sprouts, containing all the elements for high egg production, can be grown by this process in 24 to 48 hours—it's a waste of time, labor and money, from an egg-producing point of view, to allow the grain to grow into tough, indigestible

and unpalatable stalk, maving practically no nutriment.
Price, 100-Hen Sprouter.....\$10.50
Price, 200-Hen Sprouter..... 13.00

"New Model" Clover Cutter for Poultry Removable Steel Knives—Adjustable Cutter Bar—Runs Easy—Cuts Fine—Is Durable

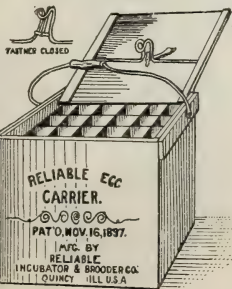


The "New Model" Clover Cutter is designed for cutting, either green or dry, such growths as clover, alfalfa, vegetable tops, etc., into $\frac{1}{2}$ -inch lengths. These growths are the cheapest and most productive egg-forming poultry foods for cold weather.

The "New Model" is made only of iron and steel, from entirely new patterns. It is a strong feeder, has large capacity, runs unusually easy and will do perfect work indefinitely. Length over all, 28 $\frac{1}{2}$ inches.

The machine is intended to be mounted on a box or bench at any height to suit the operator.

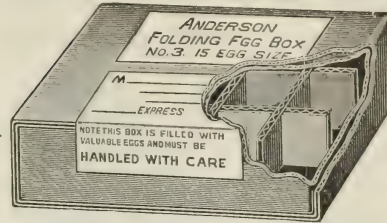
Price, with four 7-inch knives.....\$10.50
Price, with extended shaft and pulley for power..... 13.00



Reliable Egg Carrier

Nicely painted; equipped with the very best fillers. Patent top and sling handle. Holds twelve dozen. (See cut.) Price, each, 75c.

Anderson Folding Egg Boxes



Set Up Ready to Ship

Made of heavy corrugated paper. The greatest advantage in it is that they can be bought K. D. (in the flat), and the express or freight will be about one-sixth of what it has been on the old style boxes. Only a few seconds' work to set the box up, pack it with eggs, and address it. These boxes are light, but very strong, being firmly braced, and will stand the weight of several hundred pounds without crushing.

No. 3—15-Egg size, 15c each, 6 for \$.80; dozen, \$1.50
No. 4—30-Egg size, 20c each, 6 for 1.25; dozen, 2.25
No. 5—50-Egg size, 35c each, 6 for 2.00; dozen, 3.50

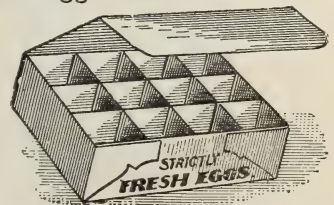
Banner Root Cutter No. 7



This is an illustration of the Banner No. 7 Root and Vegetable Cutter, a machine made expressly for poultrymen. It quickly cuts vegetables into long, round, ribbon-like slices, that resemble a bunch of angle worms, which fowls readily eat up to the last morsel. The value of this kind of food once or twice a day, as an egg producer, is unequalled. It also puts the fowls into a fine, healthy condition, acting as a general tonic and laxative. This machine will pay for itself in a short time. It is a valuable addition to the poultry house and comes to us highly recommended by the best poultry experts in the country.
Price, Banner Root Cutter, \$5.50.

Paper Egg Boxes

Intended for use in delivering eggs to private families. If you have a select egg trade you should use this box. They ship knocked down at a low rate. One doz., 15c; per 125, \$1.25; per 500, \$4.25; per 1000, \$8.00.

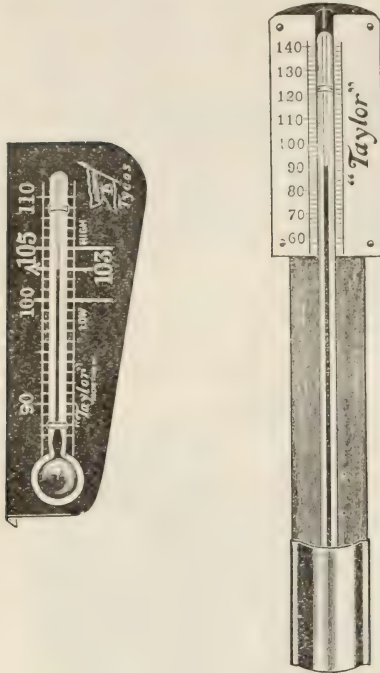


Inland Shipping Coops

All wood, neat, very light, but strong. Poultry raisers selling poultry at fancy prices should always use these coops.

No. 1—10x21x18, 35c; 6 for.....\$1.50
No. 2—10x21x20, 45c; 6 for..... 2.25
No. 3—20x24x20, 55c; 6 for..... 2.75

High-Grade Tested Thermometers



The best incubators and brooders manufactured are worthless unless the thermometers therein are correct. The thermometers here listed are guaranteed by the manufacturers to be thoroughly and expertly tested before they are offered to the public. Price, Incubator Thermometers, 75c postpaid. (Hang it from the top of egg chamber so it touches the eggs.) Brooder Thermometers, 50c postpaid.

The Inland Dry Food Hopper



THE INLAND DRY FOOD HOPPER is a practical labor saving device for feeding dry grain food, either whole or ground. These hoppers are well made of heavy galvanized iron.

The Inland Dry Food Hopper has two compartments, a large one for grain mixtures holding about six quarts, and a small one for beef scraps, holding about three quarts. The trough of the

hopper is high enough to prevent waste, and at the same time permit easy access to the food. The hopper is provided with a hinged cover, which protects the grain at all times from moisture and filth, and is also supplied with a strong handle for convenience in filling and handling. These hoppers are intended to be hung against the wall of a poultry house. Price, 90c.

"Tycos" Certified Incubator Thermometer

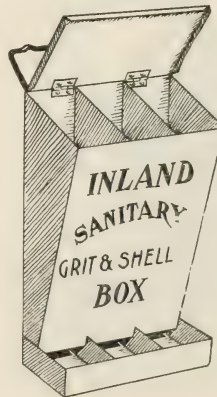
With scale etched on the glass tube, so that should the tube from any cause work loose on the mounting, the efficiency of the thermometer would not in any manner be diminished. Made in mercury tubes only. Each, \$1.25.

"Tycos" Incubator Hygrometer



Millions of chicks die in the shell every year for the want of proper moisture conditions. The "Tycos" Incubator Hygrometer is not a regulator of moisture, but is an indicator of conditions, so that if not correct, they may be made so. Price, \$1.50 each.

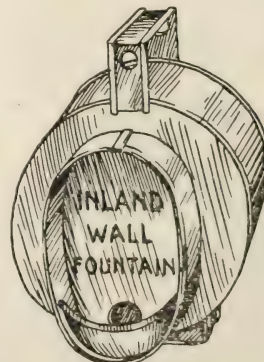
Inland Sanitary Grit and Shell Box



A Necessity on Every Well Organized Poultry Plant

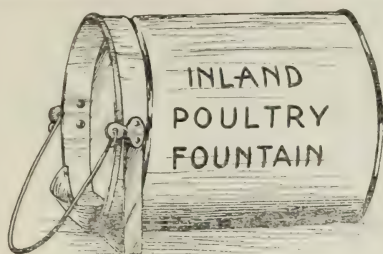
The Inland Sanitary Grit and Shell Boxes work a material saving in grit, oyster shell, ground bone, charcoal or poultry foods. They are thoroughly practical, self-feeding boxes, well made out of heavy galvanized iron. This style of box is made with three compartments—for grit, oyster shell and charcoal. It is provided with a cover or lid, which protects the contents and being placed at an angle furnishes a slanting top, preventing the fowls from roosting on the top of the box. It is also provided with a strong handle by which it may be hung to the wall of the poultry building. Price, 50c.

Inland Wall Fountain



These fountains are something new and extra serviceable in the way of poultry fountains. The back is flattened so that it can be hung on the wall of a building, or against an upright post or board at any height. A galvanized iron hood projects over the water trough and protects the water from becoming soiled. These fountains are equally serviceable for young chickens or adult fowls, are especially useful for pigeons. They are made of the best galvanized iron and guaranteed to last many years with proper care. Prices. One-gallon size, each, 70c; 2-gallon size, each, 85c.

POULTRY SUPPLIES—Continued

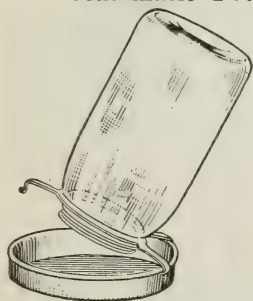


Inland Poultry Fountain

We have handled these fountains for two years and consider them one of the best on the market. They are made of heavy galvanized iron, are easily filled and freezing will not hurt them. We have them in two sizes.

Price, 1½-gallon 70c
Price, 3-gallon 90c

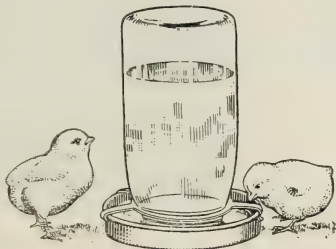
Automatic Fountain and Feeder



Feeds water, grain, grit, etc., automatically. Is easy to fill and operate. Just lift trigger, as shown in cut, which releases pan, clip remaining on jar, leaving pan without any obstruction, affording easy cleaning. Thus a sanitary fountain.

Made to fit any half gallon, quart or pint Mason jar.
We do not furnish jars.

Price, 25c postpaid, express or freight; each, 15c; doz., \$1.40.



Drinking Fountains

The Galvanized Iron Drinking Fountains embody every good feature of a down-to-date drinking fountain, and are believed to be the best in use. They have done much to supplant the old-style earthenware fountains which could not be thoroughly cleaned and purified. A fountain that cannot be easily and readily cleaned out, and in which water soon becomes sour, is highly objectionable. A fountain that will burst if the water in it freezes is also an annoyance and a source of loss. These fountains are easily filled, easily cleaned and kept clean.

Prices, 1 qt., 25c; ½ gal., 35c; 1 gal., 50c.

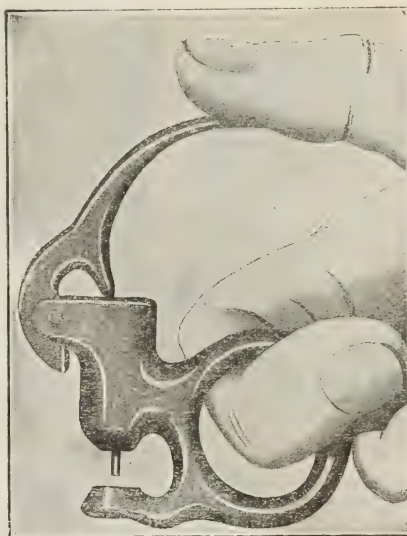
Petty's Poultry Punch



Latest, most convenient Poultry Punch; can be put

on a key ring or used for a watch charm. Will not clog. Thoroughly practical. Price, postpaid, 25c.

Acme Spring Lever Poultry Punch



If you keep a record of your chicks, of the different breeds, hatches, strains, etc., there is not better, quicker or easier way than by using our latest invention, the Acme Spring Lever Poultry Punch for marking the web between the toes. Price, 35c postpaid.

Champion Leg Band



The oldest and most popular band on the market. This band is made in one piece in two sizes, adjustable to fit any fowl. They will stay where you put them. Held by double lock, it is impossible for them to lose off. Made of aluminum or copper in two sizes, large size for Asiatic class and turkeys; small size for Plymouth Rocks and all smaller breeds. Price (postpaid), 12, 15c; 25, 30c; 50, 50c; 100, 80c.

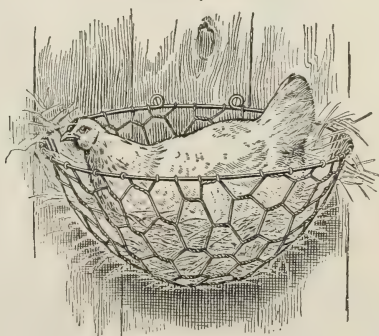
Aluminum Pigeon Bands

Pigeon Bands are seamless and open, with number.

PRICE, POSTPAID

Seamless, 12, 30c; 25, 60c; 50, \$1.00; 100, \$2.00.
Open, 12, 20c; 25, 35c; 50, 60c; 100, \$1.00.

Wire Nests



Plain Nests. These nests are strongly made from heavy japanned steel wire and will last a lifetime. They are intended to be fastened to the wall with screws or screw hooks. There is no room on them for lodgment of lice or vermin of any kind; they are easy to keep clean and are far superior to wooden boxes. Price, each, 20c; per dozen, \$1.50.

Medicinal Nest Eggs



The great discovery for ridding poultry of vermin. The least trouble to use of any remedy on the market. Only place the eggs in the nests. They do the work.

Medicated Nest Eggs should be used the year around, as in winter when they are all on the fowls is the best time to destroy lice. Our Nest Eggs will kill or drive them off to perish in the cold. The poultry will then be in good condition to start in the spring.

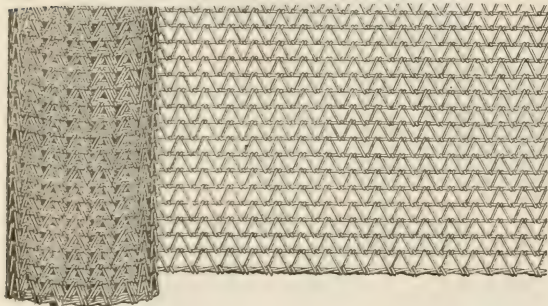
Directions for Use—Don't expect one egg to rid your poultry and poultry house of lice. To

realize the best results keep an egg in each nest for laying hens; in each coop for brooding hens and chicks, and enough to change about under setting hens. Place one egg in each nest in which the hens are laying and leave it there. Do not leave the eggs under setting hens more than one day at a time, unless put under the straw in the nest. Price, each, 5c; doz., 50c; postpaid, 85c.

Lime Nest Eggs

These are made under some secret process in such a manner that they are practically unbreakable. Their resemblance to a hen egg is so near that it can hardly be detected. Price, 3 for 10c, 12 for 30c; postpaid, 55c.

"U. S." Poultry Fencing



This cut shows the construction of the "U. S." Poultry, Rabbit and Lawn Fencing. It combines strength, durability and neatness of appearance. It is flexible, and readily adjusts itself to uneven surfaces without buckling. Stretches in firm, straight lines without rail supports, and as compared with ordinary netting of same gauge wire, the "U. S." in the complete fence is much cheaper, as fewer posts are used and no top or bottom rail is required to keep the fence from sagging or narrowing together between the posts. We also use the cable selvage in the "U. S." Poultry and Rabbit Fence, which, combined with the great multiplicity of horizontal wires, makes it a very strong, durable fence. Bear in mind that the bars in the "U. S." fencing are only two inches apart. Put up in rolls containing 150 lineal feet.

PRICES

PRICE TWO-INCH MESH

12 inches high, per roll.....	\$0.90, 5 roll lots, \$0.85
24 inches high, per roll.....	1.85, 5 roll lots, 1.75
36 inches high, per roll.....	2.80, 5 roll lots, 2.65
48 inches high, per roll.....	3.60, 5 roll lots, 3.40
60 inches high, per roll.....	4.40, 5 roll lots, 4.20
72 inches high, per roll.....	5.25, 5 roll lots, 5.00

ONE-INCH MESH—150 FEET

18 inches high, per roll.....	\$3.00
24 inches high, per roll.....	4.00
30 inches high, per roll.....	4.75
36 inches high, per roll.....	5.50

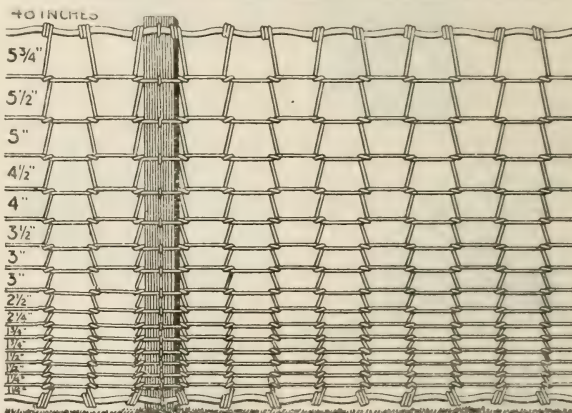


Pat. July 6, 1897.

The M. M. S. wire being only one inch apart at the bottom requires no board to prevent little chicks passing through. Also saves buying expensive one-inch mesh wire.

60 in. high, 165 ft. long, per roll, \$4.75; 5 roll lots, \$4.50
72 in. high, 165 ft. long, per roll, 5.50; 5 roll lots, 5.25

SPECIAL POULTRY AND STOCK FENCE



Made in 48 and 60-inch Heights

To meet the demand for a fence suited for poultry and stock we are putting on the market the Special, which is particularly adapted for such general purposes. It is scientifically constructed from the best material, heavily and thoroughly galvanized.

The illustration shows that the stays are in one piece running continuously from bottom to top, and that they are interwoven so as to render it impossible to slip or spread the wires in any way. This makes the best as well as the strongest combination possible to be produced from the same amount of wire.

Heavily and Thoroughly Galvanized. Stays in One Piece Running Continuously from Bottom to Top

Detail of Construction—Two 2-ply strand margin wires No. 13; fifteen No. 14 intermediate line wires in 48-inch height; seventeen intermediate line wires in 60-inch height. Mesh wires No. 14, spacing between mesh wires, 6 inches. Spacing between the line wires, from bottom to top, as follows: 1 1/4, 1 1/4, 1 1/2, 1 3/4, 1 3/4, 2 1/4, 2 1/4, 3, 3, 3 1/2, 4, 4 1/2, 5, 5 1/2, 5 3/4 and 5 3/4 inches.

Price, 48-inch, 20 rods to the roll.....\$10.00
Price, 60-inch, 20 rods to the roll..... 11.00

Write for Conkey's free Poultry Book; it is full of valuable information.

SPOKANE INTERSTATE FAIR

To all to whom these presents shall come

ORDERING
Know Ye That **Inland Seed Company**
Of *Spokane, Wash.* Has Been Awarded This

DIPLOMA

For

Display of Poultry Supplies

Exhibited at the *Eighteenth* Annual *Spokane Interstate Fair* held at
Spokane Washington from the *second* day of *October* 1911
to the *eighth* day of *October* 1911, Inclusive.



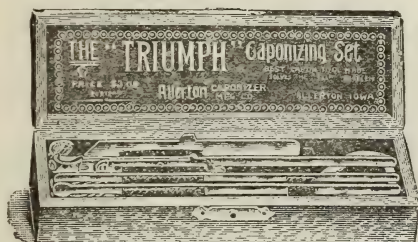
In Witness Whereof *We hereunto set our hands and seals*
this *fourth* day of *October* 1911
SPOKANE INTERSTATE FAIR

President

Secretary

Our Chick
Feed is made
only from the
best re-clean-
ed grains.

There can
be none better



The "Triumph" Caponizing Set

There is no doubt in the minds of up-to-date poultrymen as to the advantages of caponizing. The operation is very simple, and with a "Triumph Caponizing Set" any boy twelve years of age can perform it with safety and thoroughness. Capons, as anyone knows, sell on the market as a rule from 5 to 8 cents per pound higher than any other chickens. The demand for capons is always good, is steadily growing, and at this time a better market is assured the producer in this field than any other. Now is the time to get into the caponizing business, and the first thing to start right is to buy a "Triumph Caponizing Set." No more efficient, simple or more easily operated set is being offered the craft today than the Triumph, and you will make no mistake by selecting the Triumph set.

PRICES

Set in plush-lined, cloth-covered case.....	\$3.00
Set in polished hardwood box.....	2.75
Set in japanned wood box.....	2.50

Permanite Roofing

This roofing is manufactured from a high-grade wool felt which is thoroughly saturated and coated with asphalt. It is fire-resisting, water-proof and weather-proof, and will last for a great many years. It is easy and quick to lay; can be used with equal success on a temporary shed, dry-kiln, mill or factory roof, modern office building or wherever a good material is required for a flat roof. Nails and cement are enclosed in each roll. Permanite Roofing is made in three weights as follows.

1-ply, 34 pounds per roll; price, \$2.00; 5 rolls, \$ 9.00
2-ply, 44 pounds per roll; price, 2.50; 5 rolls, 11.50
3-ply, 54 pounds per roll; price, 3.25; 5 rolls, 15.00



POULTRY FOODS

Clover Leaf Chick Feed

The experience of poultry raisers is the same the world over. Everybody knows that the first few weeks is the critical time—that's when the distressing losses come—losses that are so severe that about one-half of the people who engage in poultry raising are driven out of the business, the weak unused stomachs of newly hatched chicks cannot suddenly accustom themselves to the illy adapted, poorly balanced foods that are supplied. Unbalanced food means failure of digestion, and that means decrease of an already low temperature, chills, bowel troubles, "sleepy disease" and almost certain death.

By using Clover Leaf Chick Feed you can give the chicks just what nature intended they should have, a food composed of grains (cracked), small seeds, grit, bone, dried sweet meat (to take the place of insects and bugs), charcoal, etc., etc., mixed in the right proportion to produce a quick and profitable growth without loss. You can raise so many more chicks by feeding it, that it is the cheapest food you can buy. Price, 5 lbs., 25c; 25 lbs., 90c; 50 lbs., \$1.60; 100 lbs., \$3.00.

Clover Leaf Balanced Ration

This is a complete food ground and ready to mix with water, hot or cold, according to the season. It contains all the ingredients necessary to promote quick growth, to produce eggs and to keep the birds in a good condition, summer and winter. Random and haphazard feeding is no longer profitable. Try this food and be convinced. We have thoroughly studied the subject of food for fowls and know this much will give you the desired results. It is no more trouble to feed than a bucket of ordinary food, which is often as good as wasted, as the results are not generally satisfactory. To be successful you should make every pound of feed show results. Clover Leaf Balanced Ration costs only a little more than wheat or corn and is of twice the value. Try it. Price, 80-lb. sack, \$1.60.

Armour's Meat Meal

Armour's Meat Meal contains from 50 to 65 per cent of protein, 10 to 12 per cent of fat and less than 5 per cent of ash. Made from hearts, livers, meat scraps and cracklings from United States government inspected animals. Pure, clean, sweet and wholesome. Will keep indefinitely if stored in a dry place. Price, 100 lbs., \$3.75.

Alfalfa Meal

The value of some green food for fowls can hardly be overestimated. For a winter food we have found by experience that alfalfa is one of the best for this purpose. It contains more protein lime and mineral salts in soluble and digestive form than clover, and fowls relish it in either a green or dry state. For producing eggs in winter it has no equal. For little chicks it furnishes the element for growth, making bone, blood, muscle, feather and preventing disease. Price, 100 lbs., \$1.50.

Clover Leaf Scratch Food

This is a balanced ration, all grain poultry food, composed of the choicest grain and other ingredients. In the first place, our factory is situated where we can get the best of northern-grown wheat; to this is added sunflower, corn, oats, peas, kafir, rape, millet, oyster shells and grit in just the proportion that several years of experience has demonstrated is right. Every practical poultry man will readily concede that such a diversity of the most valuable feeds will put hens in just the right shape for laying.

Price, per 100 lbs., \$2.25.



Armour's Beef Scraps

The object in buying Beef Scraps or Meat Meal is to obtain the largest amount of digestible protein possible, as protein is what you are in quest of to balance your ordinary Farm Foods and grains. Armour's Beef Scraps contain from 55 to 65 per cent of protein, 10 to 12 per cent of fat and less than 5 per cent of ash.

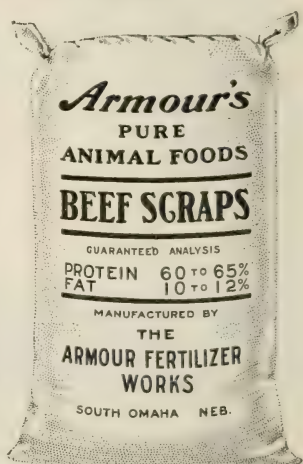
The guarantee on protein gives you an approximate value of the feed, but the percentage of ash contained tells you whether you are buying pure meat product or not. Price, 100 lbs., \$3.75.

Armour's Granulated Blood—One great reason why hens do not lay in winter is because they are not supplied the proper elements to produce the yolk of an egg. This can be remedied by the use of Dried Blood or Beef Scraps. Blood is the highest concentrated form of animal food and prepared so as to include all the elements of the so-called Red Albumen. Use one tablespoonful to six hens once a day. Price, 4 lbs., 25c; 100 lbs., \$5.00.

Blood Meal (Standard), 100 lbs., \$3.00.

Granite Crystal Grit

The sharpest and hardest grit known. Free from dust, is sharp, hard and clean. Rich in iron, silica, aluminum and mica, a health giving tonic. Viewed under the magnifying glass, it shows myriads of crystals clear as glass and sharp as a diamond. Each crystal has sharp edges, which cut and grind, and grind and cut until the last minute particle is worn away. Thus it will last two or three times longer than any other grit, and is therefore cheaper. We need not enlarge upon the value of grit for poultry. Every poultryman knows how necessary it is to their welfare. In ordering please state whether you want chick size or poultry size. Price, 100 lbs., \$1.00.



POULTRY SUPPLIES—Continued

Granulated Charcoal

Our Granulated Charcoal is guaranteed pure. It is not ordinary commercial charcoal, but is especially prepared for poultry, containing no foreign matter, or anything in any way harmful to the chickens or ducks. It is an excellent conditioner, aids digestion, purifies the blood, keeps the crops sweet, regulates the bowels and promotes the general good health of the chicks and adult fowls. Granulated Charcoal is prepared for us in two sizes, viz.: Fine granulated, for all mash rations and for small chicks and a coarser granulated for adult fowls. Price, 10c per lb.; 10 lbs., 60c; 50-lb. sacks, \$1.75; 100-lb. sacks, \$3.25.

Oyster Shell

Every poultry house or yard should have a pan or box filled with crushed shells, so that the fowls can have access to them at all times. Oyster shells prevent soft shell eggs, makes the egg shells strong enough to carry without breaking and makes eggs larger and heavier. Price, 10 lbs., 25c; 100 lbs., \$1.50.

Granulated Bone

Many poultry men prefer granulated bone to fresh or green bone. Fresh or green bone contains 53 per cent of moisture and 12 per cent of grease, so that when a poultryman buys fresh bones he pays for 65 pounds of useless materials in every 100 pounds he buys. Granulated Bone, while more expensive as a rule than green bone, fully

makes up for the difference by its concentrated value. It is made from fresh bones with the moisture and grease taken out, leaving nothing but the phosphate of lime and nitrogen. Price, 10 lbs., 40c; 100 lbs., \$2.75.

Feed Grains

We keep in stock for feed, wheat, screened cracked wheat, corn, screened cracked corn, barley, oats, bran, shorts, etc. As above feeds fluctuate so in value we do not list prices, but will be pleased to quote upon application.

Oil Meal

Oil Meal is an extra good food for poultry, cows, horses or calves. If fed to cows, it increases the milk flow and is a material help in calving. If properly fed calves can be entirely raised upon it. Price, 6 lbs., 25c; 120-lb. sacks, \$3.60.

"Proteina" Soy Bean Oil Meal

More Than Half Again as Rich as Linseed Oil Meal
More Than Double the Feeding Value of Corn

All animals, including horses, young lambs and calves, eat "Proteina" readily without any disturbing effect on digestive organs such as is usually experienced when feeding other oil meals—this feature makes it especially valuable where forced feeding is desired.

"Proteina" is unequaled as a feed for dairy stock, producing immediate increases in milk and butter fat, as is abundantly proved by actual tests.

"Proteina" is unsurpassed as a poultry food owing to the large amount of albumen it contains.

Price, 7 lbs., 25c; 100 lbs., \$2.75.

Stock and Poultry Remedies

GOLD COIN STOCK TONICS AND VETERINARY REMEDIES

"Gold Coin Horse Tonic"

FOUR FEEDS FOR ONE CENT



A Horse Tonic for Horses Only
A Tonic for Horses Only

It hardens the muscles. It gives extra strength, speed, style, action and endurance. It aids digestion. It purifies the blood and sleekens the coat. It clears the water, regulates the bowels, cures and prevents disease. It keeps mares and colts healthy. Made from pure Roots, Barks, Seeds and Herbs.

GOLD COIN HORSE TONIC—Sold in 25c, 50c and \$1.00 packages. In 12½-lb. pails, \$2.00; 25-lb. pails, \$3.50; 50-lb. tubs, \$6.50; 100-lb. barrels, \$12.00.

"Gold Coin" Hog Tonic

This is the only scientific preparation on the market today made especially for fattening and conditioning hogs. Every hog raiser needs this great "Hog Tonic." It makes extra money for every farmer who uses it, by saving of feed, rapid growth, quick fattening and prevention of diseases.

FEEDING HOGS—If your hogs are in good condition, feed one measureful of "Hog Tonic" twice a day to each full-grown hog. If not thriving, feed two measurefuls three times a day until in good condition and then reduce to one measureful twice a day.

QUICK FATTENING—For very rapid fattening give two

measurefuls of "Gold Coin Hog Tonic" to each hog three times a day. If necessary to hurry the fattening, you may use three or four measures three times a day to each hog. Mix the "Tonic" with the slop water or sprinkle it over the feed.

GOLD COIN HOG TONIC—Put up in 25c and 50c packages; also in 25-lb. pails, \$2.00; 50-lb. tubs, \$3.75; 100-lb. barrels, \$7.00.

"Gold Coin" Cattle Tonic

A SCIENTIFIC CATTLE TONIC FOR THE DAIRY
Prepared especially for cattle and sheep. It is the most scientific conditioner and fattener ever discovered. When fed to steers or dry cows it increases the flow of milk and the butter fats (cream). When fed to sheep it increases the growth, mutton and wool. To young stock it gives health and rapid growth. It is a tonic for loss of appetite, and a preventive for scours in calves.

GOLD COIN CATTLE TONIC—Has been a money maker for thousands of farmers and cattle raisers, and it will make money for you if you feed it faithfully as directed above. It will fatten in 30 to 40 days less time. Put up in 25c and 50c packages; also in 25-lb. pails, \$2.00; 50-lb. tubs, \$3.75; 100-lb. barrels, \$7.00.

"Gold Coin" Poultry Tonic

IT MAKES HENS LAY—It is the greatest egg producer ever invented. A few weeks' trial of it will prove its value. It contains the stuff that helps hens make eggs.

IT PREVENTS AND CURES CHICKEN CHOLERA—It is the cheapest and best poultry tonic on the market today. It will cure and prevent all poultry diseases, and saves feed. It fattens in half the usual time and makes extra money for you both in increased egg production and in rapid growth of young fowls. It is not what your poultry eats, but what they digest and turn into flesh and production of eggs that makes money for you.

GOLD COIN POULTRY TONIC—Put up in 25c, 50c and \$1.00 packages; also 12½-lb. pails, \$2.00; 25-lb. pails, \$3.50.



STOCK AND POULTRY REMEDIES

"Gold Coin" Remedies

GOLD COIN FOOT REMEDY—Quickly cures Sore Feet, Lameness from Corns, Sand Cracks, Quarter Cracks, Contracted Heels, etc. Per can, 50c.

GOLD COIN LOUSE POWDER—Kills Lice, Ticks, Mites on Poultry, Pigeons, Dogs, Cats, Stock; also Plant Lice, Mites, etc. Per can, 25c.

GOLD COIN LICE KILLER—To kill lice in hen houses, hog pens, stables, etc. Quarts, 35c; half gallon, 60c; one gallon, \$1.00.

GOLD COIN HARNESS OIL—For oiling harness or preserving any kind of leather. Per can, 25c.

GOLD COIN HARNESS SOAP—For cleaning and polishing harness, buggy tops, shoes and all kinds of leather. Per can, 25c.

GOLD COIN WORM POWDER—Kills all worms and bots in horses, hogs, sheep, dogs, etc. Per package, 50c.

GOLD COIN HEALING OIL—For barb wire cuts, nail injuries, burns, scalds, flesh wounds or cuts, on man or beast. Per bottle, 25c and 50c.

GOLD COIN COLIC CURE—Cures windcolic, bloat, spasmodic colic, stoppage of urine, etc. Per bottle, 50c.

GOLD COIN COLD AND DISTEMPER CURE—A specific for distemper in young or old horses. Quickly cures colds, coughs, etc. Per package, 50c.

GOLD COIN SPAVIN CURE—For curable spavins. Quickly reduces all soft swellings as "Bog" Spavin, Blood Spavin, Swollen Joints, Inflammation, etc. Per bottle, \$1.50.

GOLD COIN CONDITION POWDER—For sick animals. A high-class medicine for fevers and all acute diseases. Per package, 50c.

GOLD COIN GALL CURE—For sores on neck, shoulders and back from rubbing of harness or saddles. All cuts or wounds on horses. Be sure to work the horse while using it. It cures best while working. Per can, 25c and 50c.

GOLD COIN GERM KILLER—The most practical disinfectant for stables and outbuildings. Destroys all disease germs, cleanses and purifies filthy places, thus preventing causes and spread of diseases. Per can, 25c and 50c.

HEAVE CURE—It is the best and cheapest heave cure. It is a recent discovery and is curing cases which all other remedies have failed to touch. Per package, 50c.

LUMP JAW—Cures the disease known as lumpy jaw, which is due to a micro-organism. Price, \$2.00.

"Gold Coin" Compound Liniment

THE WORLD'S GREATEST CURE FOR LAMENESS—Rub the affected parts thoroughly with the liniment. Bandage only when a blister is desired. Per bottle, 50c.

"Gold Coin" Cough and Lung Syrup

This is a cough syrup for Horses, Cattle, Sheep or Hogs. If given in time it will prevent many serious diseases, such as pneumonia, bronchitis, consumption, etc. It is important to attend to all lung diseases promptly. Per bottle, 75c and \$3.50.

"Gold Coin" Sheep Dip

GOLD COIN SHEEP DIP—Is a new scientific "dip" founded on scientific principles and does what other "dips" now on the market will not do. It is cheaper, stronger and safer than any other "dip." It goes further. We can sell it to you cheaper than you can make up a "dip" for yourself. Put up in the following sizes: One gallon, \$1.50; 5 gallons, \$6.50; 10 gallons, \$12.00.

CONKEY'S REMEDIES

Conkey manufactures a complete line of Poultry Remedies. We agree with all scientists that there is no such thing as a cure-all; that each separate disease requires its own specific treatment and remedy. All over the world, wherever poultry is raised, these remedies are known as absolutely reliable. We guarantee them and return the purchase price should they fail to please you.

Conkey's Laying Tonic

promotes egg laying by no hocus-pocus. It tones the bird to health without forcing, prevents the sluggishness that comes naturally by digesting the heat-producing foods,

and promotes summer fettle in off-seasons when eggs bring high prices.



IT IS A MEDICINE, NOT A FOOD, and you mix it with your hen's rations at home without paying fancy prices for bran and middlings which you can supply cheaper yourself.

CONKEY'S LAYING TONIC is the product of no mere theory, for it is steadily increasing the egg yield wherever it is used, and that means in every state and territory. We guarantee it to please you absolutely and we will refund the price cheerfully if it fails to do so. Prices, 1½ lbs., 25c; 3¼ lbs., 50c; 7 lbs., \$1.00; 25-lb. pail, \$3.00. Expressage extra.

Conkey's Stock Vigor

If you want a conditioner that is a conditioner, try this! It is the best that has ever been manufactured! It is not a stock food, but a concentrated, medicinal tonic, made of good, standard drugs, which you mix with your own food-supply at home prices. Prices: 1 lb., 25c; 2¼ lbs., 50c; 5 lbs., \$1.00; 12-lb. pail, \$2.00; 25-lb. pail, \$3.50.

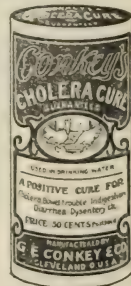
Conkey's Roup Remedy

Many poultry men make the mistake of waiting until their flocks contract a cold, or are down with the Roup, before ordering. They are taking big chances, as Roup develops quickly, spreads through the flock rapidly, and death may claim a large number before the remedy can be obtained. Always keep a box of CONKEY'S ROUP REMEDY on hand. A little in the drinking water, occasionally, will prevent this disease and will serve as an excellent tonic when the vitality of your fowls is impaired. Prices, 50c and \$1.00 postpaid. Enough to make 25 and 75 gallons of medicine and allow frequent freshening.



Conkey's Cholera Remedy

From the chick, to either market or maturity, there are the diseases of the digestive organs to make life miserable for the poultryman. They are called CHOLERA but, fortunately, genuine Cholera very seldom appears in this country. They are bad enough, and are Indigestion, Bowel Trouble, Diarrhoea, Dysentery and Sour Crop. If given as a preventive occasionally in the drinking water, it will save you annoyance and loss. We guarantee Conkey's Cholera Remedy to please you, or your money back without question. Price, 25c and 50c postpaid.



Conkey's Lice Liquid

The fowls' greatest enemy is the mite, which leaves the fowl's body during the day, hiding in the cracks and crevices of the roosts and houses, and at night covering the fowls' bodies and sucking their blood, depriving them of their vitality and rest. A powder will not reach them effectively, but CONKEY'S LICE LIQUID will. It is made after our formula, which has been scientifically prepared and most carefully tested. It will immediately kill these terrible pests and its fumes, passing up into the feathers, will do much to kill the body lice. It surpasses everything else as a death dealer to mites and will quickly and entirely rid your poultry houses of them. Not only will it kill mites, but



STOCK AND POULTRY REMEDIES

it will kill lice of every description on fowls, horses, cattle and hogs; lice and fleas on dogs, ticks on sheep, etc. It can be painted on the roosts, drop-boards, etc., or can be sprayed. For body lice it can be painted on the bottom of a box or barrel, the fowls placed in same, and the fumes, which are lighter than air, will rise, permeate the feathers and destroy the lice. We know it will more than please you. Prices: 1-qt. can, 35c; 2-qt. can, 60c; 1-gal. can, \$1.00; expressage extra on all sizes.

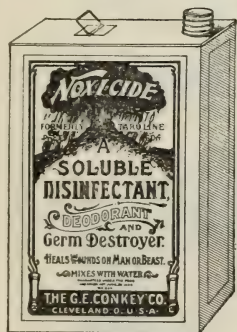
Conkey's Lice Powder

For successfully killing lice nothing can equal a powder which is properly made. CONKEY'S LICE POWDER is the result of our most careful study and research, and is a combination which will positively kill these pests, and yet which is harmless to fowls of all ages. We believe that it is the strongest and most effective powder on the market. It will kill lice on poultry, cattle and horses, ticks on sheep, fleas on dogs and vermin of all sorts. It will also kill bugs on cucumber, squash and melon vines, slugs on rose bushes, etc. It is also a most effective disinfectant and germ destroyer. Hens which spend the day picking and scratching themselves in a vain effort to get rid of these lice can not give you satisfactory returns, and because of their lack of vitality are susceptible to all kinds of disease. CONKEY'S LICE POWDER is guaranteed to please you. Prices: 5-oz. box 10c, postpaid 15c; 15-oz. box 25c, postpaid 40c; 48-oz. box 50c, postpaid or express paid, \$1.00; 100-oz. box \$1.00, freight or express at customer's expense.



Conkey's Nox-i-cide

One Part Nox-i-cide to 100 Parts Water



If all diseases could be prevented, there would be but little need of remedies. CONKEY'S NOX-I-CIDE is the best Disinfectant and Germ Destroyer known. It is excellent for every-day use, and there is nothing to take its place at the same cost.

Very many diseases are of germ origin. Nox-i-cide is a grand insurance against loss by contagious and infectious diseases. It is cheap and effective. It is the cheapest and best Sheep Dip known. There is hardly a place in all domestic economy where Nox-i-cide will be dispensed with after it has once been tried. Prices: 1 pt., 35c; 1 qt., 60c; 2 qts., 90c; 1 gal., \$1.50.

All of Conkey's Remedies are guaranteed to please the consumer, or his money will be returned without a question.

CONKEY'S GAPE REMEDY—A reliable remedy for this terrible enemy of little chicks. Price, 50c; postpaid, 60c.

CONKEY'S CHICKEN POX REMEDY—This is called by different names in various localities—Sorehead, Warts and Pian. They are all the same disgusting disease and this will cure it. Price, 50c; postpaid, 55c.

CONKEY'S LIMBER NECK REMEDY—When fowls eat putrid flesh, they are liable to have ptomaine poisoning, called Limber Neck. This remedy cures if given at the first start. It should be kept on hand. Price, 50c; postpaid, 55c.

CONKEY'S SCALY LEG REMEDY—This cures Scaly Leg, and is excellent for dressing the feet and legs of show birds. Price, 50c; postpaid, 55c.

CONKEY'S RHEUMATIC REMEDY—Excellent cure for fowls or humanity. Price, 50c; postpaid, 55c.

CONKEY'S HEALING SALVE—For man, beast or fowl, antiseptic and healing. It is excellent. Price, 25c and 50c. Both sizes postpaid.

CONKEY'S POULTRY LAXATIVE—Don't give Castor Oil, Aloes, etc. This is absolutely reliable. Price, 25c postpaid.

CONKEY'S POULTRY TONIC—General tonic for minor ailments that are not determined. Will often stop a disease at the start. Price, 25c; postpaid, 30c.

CONKEY'S HEAD LICE OINTMENT—Kills the gnat head louse; it is harmless to chicks. Price, 10c and 25c. Both sizes postpaid.

CONKEY'S HEALING POWDER, the wonderful Gall remedy, for Galls, Chafes, Cracked Heels and all wounds. The greatest healing agent known to science. Price, 50c postpaid.

CONKEY'S FLY KNOCKER means peace to your stock and to you. It kills every fly it hits and keeps others from annoying stock. It will clear your stables. Prices: 1 qt., 50c; 2 qts., 75c; 1 gal., \$1.25. Expressage extra.



CONKEY'S DISTEMPER REMEDY (FOR DOGS)—Best remedy for this difficult disease. Price, 50c postpaid.

CONKEY'S MANGE REMEDY (FOR DOGS)—This terrible disease gives way before this remedy if directions are followed. Price, 50c.

CONKEY'S FEVER REMEDY—For Coughs, Colds and any disease showing fever; Influenza, Strangles, Distemper, Pink Eye and Shipping Fever. Price, \$1.00.

CONKEY'S WORM REMEDY—Gets the hurtful, ulcerous worms. Greatest worm remedy of the age. Price, 50c.

CONKEY'S ABSORBENT gets at Ringbones, Sidebones, Splints and all exostosis. Price, \$1.00.

CONKEY'S PAIN REMEDY banishes heat or inflammation in Sprains, Curls, Swollen Knees and hot and painful swellings. The best eye lotion as well. Price, 50c.

CONKEY'S COLD REMEDY—Immediate relief. Not a drench. Dose 30 drops on tongue. Price, 50c.

CONKEY'S HEAVE REMEDY—A perfect remedy for a common disease. Wonderful results. Price, \$1.00, or \$1.15 postpaid.

CONKEY'S POLL EVIL REMEDY—A humane treatment for an awful ailment. As thorough and scientific as it is humane. Easy to apply. Price, \$2.00.

CONKEY'S HOOF REMEDY keeps the foot in perfect condition. Sure preventive of Split Hoof, Quarter Cracks, Seedy Toe, Contracted Heel and hard, dry feet. Prices: 1 pt., 50c; 1 qt., 75c; 1/2 gal., \$1.25; 1 gal., \$2.00; 5 gals., \$9.50. Express extra.

Avenarius Carbolineum

The famous German wood preserver and insecticide. Paint or spray your chicken house, hog pens, stables, sheds, etc., with Avenarius Carbolineum to permanently destroy all poultry and other vermin and preserve your buildings from rot and decay. Price, qt. can, 50c; gal., \$1.50.

Dog Biscuit

SPRATT'S—The analysis of our biscuits shows that they are, weight for weight, equal in nourishment to fresh raw beefsteak and superior to it as a food for dogs. The standard dog food; a staple and constant food for all breeds of dogs. Price, 3-lb. cartons, 40c.

Tobacco Dust

For use in dust baths or nests. A cheap and effective exterminator of lice. Price, per lb., 10c; postpaid, 25c.

Poultry Pepper Compound

This is a splendid tonic at all times. A small amount sprinkled in with a hot mash will stimulate the circulation and increase egg production. Price, per pkg., 25c; postpaid, 40c; by freight, 5 lbs., \$1.00.

Lice Powders

BUHACH—Per oz., 10c; 1/4 lb., 30c; lb., \$1.00.
PERSIAN INSECT POWDER—Lb., 50c.

Palmer's Squirrel and Gopher Poison

The best and cheapest poison ever compounded for the speedy destruction of squirrels, gophers, etc. Price, per can, 25c.

Copperas

A small piece placed in drinking water is a good tonic for chickens. Per lb., 10c.

Insect Powder Blowers

LIGHTNING—Excellent for blowing powder on vines and bushes. Price, \$1.00.

JUMBO—Price, 25c; postpaid, 35c.

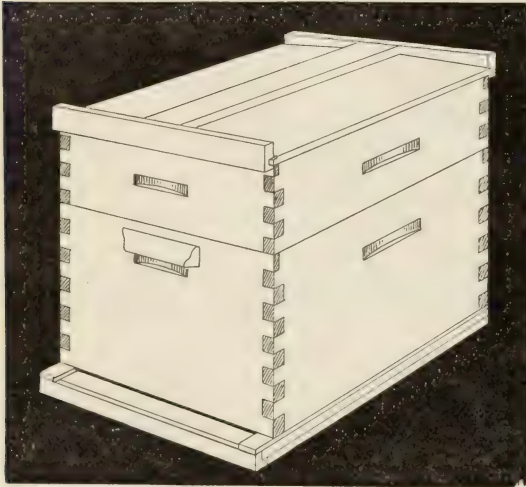
DEFENDER—Price, 15c; postpaid, 25c.

BEE SUPPLIES

BEE SUPPLIES

DOVETAILED HIVES—The dovetailed hive is now the leading hive, as it contains many of the most desirable features of the various hives for the rapid handling of bees, and is one of the cheapest and best hives manufactured. It is dovetailed together, or rather put together with lock corners.

DESCRIPTION—The body is made of pine planed on both sides, $\frac{3}{4}$ inch thick, and is fitted with metal ribbets of an improved style. Outside of body is $13\frac{3}{8} \times 20$ inches, and $9\frac{1}{2}$ inches deep. The body holds eight Hoffman frames, L size, and a division board. The frames hang below the top edge of the hive, so that there is a bee space above them, but the bottoms of the frames are flush with the bottom edges of hives, the bee space being made by the projection of the sides and can be enlarged or decreased by inverting bottom board. The bottom is 14×21 inches. The cover is made with grooved cleats at each end to prevent warping. The supers are the same size as the body of hive, but only half the depth, so that when two are put together they make a full-depth body. This hive is cheaply but

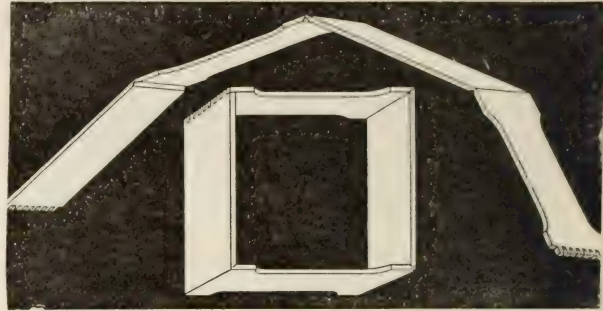


accurately made, as the edges are square in place of being beveled, as in the Simplicity. The inside width of the body is $12\frac{1}{2}$ inches, giving room for eight frames and a division board. The sections in super are held closely together by wedge or tightening spring, which allows the use of $1\frac{3}{4}$ or 7 to a foot sections. There are objections to using sections other than $4\frac{1}{4} \times 4\frac{1}{2}$, as they require special sized shipping cases and special sized cartons; and there are other reasons that will suggest themselves to those who have had experience in using other than the regular sized goods. We put up this hive for shipment in lots of five by simply crating the pieces together, or packing them in solid crates.

NO. 1 DOVETAILED HIVE (COMPLETE WITH ONE SUPER)—Consists of 1 bottom board, 1 body, 1 super, 1 cover, 8 Hoffman brood frames, 1 division board, 2 wedges for super, 6 section holders, 6 slotted separators. Price, 5 K. D., \$8.75; 1 nailed, \$2.00.

SUPERS—Same as above hive. Each, 75c; 5 in flat, \$3.25.

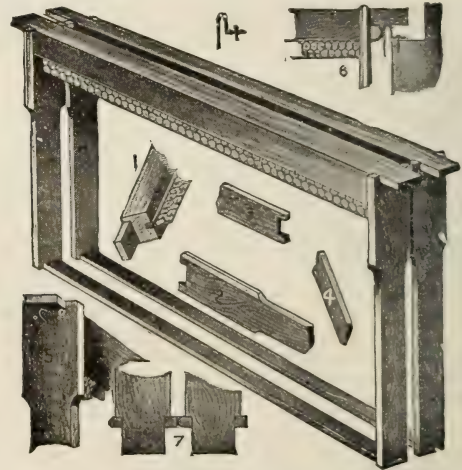
Section Honey Boxes



NO. 1 SECTIONS—Are made of the choicest white basswood lumber, and all are perfect in finish and free from defects. They are not all snow-white, but vary from that to light cream color. Price, per 25, 25c; 100, 75c; 500, \$3.50; 1,000, \$6.50.

NO. 2 SECTIONS—Selected from the best grade, sell at a price less than the No. 1. Most of them are equal to No. 1 except in color; some have dark spots, saw marks, or other blemishes which exclude them from the No. 1 grade. Price, per 25, 25c; per 100, 70c; per 500, \$3.25; per 1,000 \$6.00.

Hoffman Brood Frames



The Hoffman Improved Foundation Fastening Frames are the latest and best brood frames out. The top bar is made with a beveled strip which holds the foundation absolutely in place, perfectly straight and exactly in center to top bar. Anyone can put foundations in these frames very rapidly. It seems to combine in itself nearly all the good features and for a hanging frame it is the best self-spacer we know of. It economizes labor in that it can be handled in groups of three or four; and any particular frame can be removed without thumbing over nearly all the other frames in the hive to get room. Price, per 8, 30c; 100, \$3.25.

SECTION HOLDERS—Each, 3c; 100, \$2.25.

SLOTTED SEPARATORS (SAWED)—Ten for 15c; 100, \$1.00.

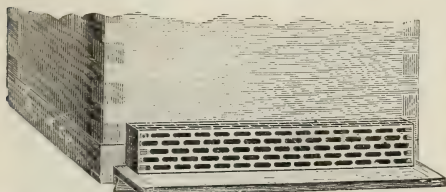
BEE SUPPLIES—Continued

Queen Excluding Zinc



We carry in stock one of the best zincs, with oblong perforations. This is used between the upper and lower stories, to prevent the queen going up above. It is also used in making entrance guards, queen and drone traps, etc. Price, 30c each; by mail, 45c.

Bee Entrance Guards



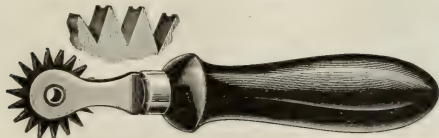
These are to admit workers, and to exclude drones. After the drones are all out, fix the guards over the entrance and at night the drones can be destroyed. Price, 15c; by mail, 20c.

Van Deusen Wax Tube Fastener



For fastening the foundation sheets to thin top-bars there is nothing better than the Van Deusen wax tube. It is simply a brass tube half an inch in diameter, six inches long and tapering. This is filled with hot wax and the point is then slowly drawn along the edge of the foundation in contact with the top-bar, leaving a fine stream of hot wax to cement it. Price, 20c each; by mail, 25c.

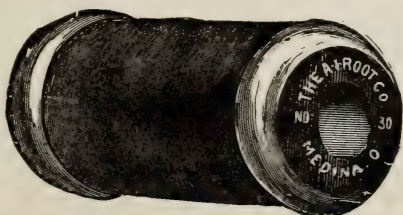
Spur Wire Imbedder



Price, 20c; by mail, 25c.

The latest spur wire imbedder is a most decided improvement over the old one. The teeth are wider and grooved in the direction of the circumference midway across front of teeth, so that the wheel will easily follow the wire. The result is beautiful work.

Tinned Wire

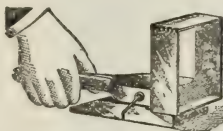


No. 30 Tinned Wire seems to be the most suitable of any

for wiring frames. We keep it in stock on spools as listed.

Sizes Furnished—	PRICE		
	Each	Doz.	Post
1/4-lb. Spools No. 30 Tinned Wire....	\$0.15	\$1.50	\$0.06
1/2-lb. Spools No. 30 Tinned Wire....	.25	2.50	.10
1-lb. Spools No. 30 Tinned Wire....	.40	3.75	.18

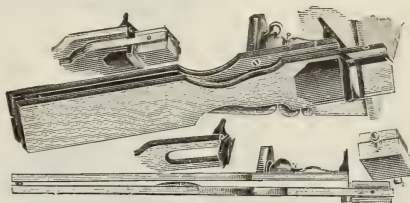
Foundation Fastener



Parker

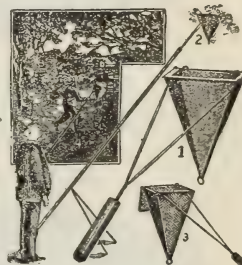
PARKER'S — The Parker Fastener is a cheap machine for fastening starters. With a little practice it can be made to work very satisfactorily. Price, each, 35c; by mail, 50c.

Daisy



DAISY—This is the best for putting starters into sections. Nothing could be more simple or more easily operated than this machine, and we are sure it will put starters in better and faster than any machine before produced. With this a boy or girl will put starters in about 500 sections per hour. Price, without lamp, \$1.00; with lamp, \$1.25.

Manum's Swarm Catcher



This swarm catcher is the best article of its kind on the market, and it will be found a valuable addition to the appliances of the apiary. Price, without pole, each, \$1.25.

Veils

A great necessity and very cheap; cotton. Each, 50c postpaid.

Gloves, Rubber



Rubber Gloves for the protection of the hands and wrists are almost indispensable in handling bees. Gents' sizes 10, 11 and 12, each, \$1.50; by mail, \$1.60.

Smokers

Every owner of a hive of bees should have a smoker. A few blasts of smoke will quiet the bees so that they may be handled with safety.

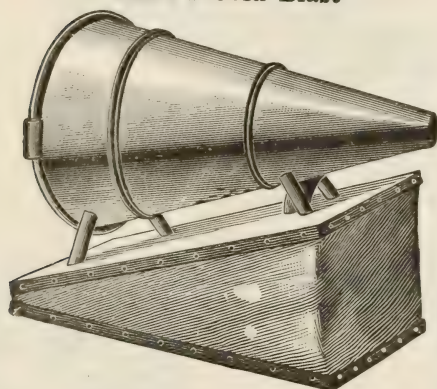
BEE SUPPLIES—Continued

The Improved Cornell

The Improved Cornell Smoker is a decided improvement. It is neat in appearance and does not topple over easily. It makes a good strong blast with little work. Very substantial. Price, \$1.00 each; by mail, \$1.30.

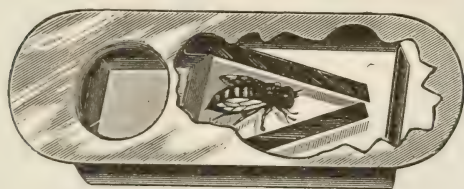


Clark's Cold Blast



Probably the most popular smoker in use today is the cold blast, although many are now changing to the hot blast, claiming that they are more effective. The Clark is the best low priced smoker. Price, 75c each; by mail, \$1.00.

Porter Bee Escape



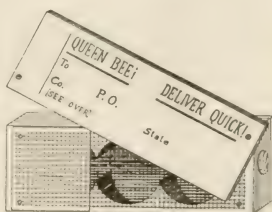
No apiarist can afford to be without bee-escapes any more than he can afford to be without a bee-smoker. In taking off honey it is the greatest labor saving device that has been introduced in late years. It avoids shawing heavy supers to get the bees out. Price, 25c.

Cages for Queens

Miller's Queen Catcher and Introducing Cage

This is a very handy little thing to have in the apiary. Anyone who is afraid to catch the queen by the wings can slip this cage right over her, and she will crawl up and then the plug can be inserted. During the swarming time it is very nice for catching clipped queens on the ground in the same way. It can be used advantageously, not only for introducing laying queens, but even virgin queens.

Being only 1/4 inch thick it can be slipped down between the combs, or slid in at the entrance, if you have not time to open the hive. In either case the bees will eat out the candy and liberate the queen in from 24 to 36 hours. Price, 10c each; by mail, 15c.



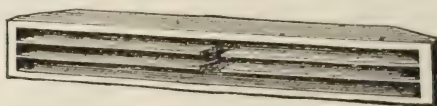
Alley's Combined Drone and Queen Trap

A perfect non-swarming arrangement. Each, 50c; by mail, 70c.

Feeding

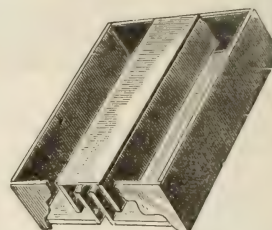
Bees are fed for two purposes: To stimulate brood-rearing or to supply them with necessary stores for winter. For stimulating, a pint or half of syrup daily either at the entrance at night or inside the hive, should be given until the required amount of brood is reared. In preparing for winter it is better to give the necessary stores all at one feed.

Simplicity Feeder



This is to be filled with syrup by mixing together granulated sugar and water in equal proportions by measure and stirring or heating until thoroughly dissolved. This feeder may be placed at the entrance at night, over the brood-frames, by placing on top of the hive or in the brood-nest itself, if a couple of frames are removed. Price, 10c each; by mail, 15c each.

Doolittle Division Board Feeder



This is the best and most satisfactory feeder we sell. Having the same outside dimensions as an ordinary division board or brood frame, it can be used in the brood nest in the same way. Its construction will be apparent from the illustration. To feed, all that is necessary is to shove the cover or quilt back far enough so that the hole through the top-bar is exposed. Through this pour the feed from an ordinary coffee-pot or tea-pot; close the hive up and the bees are thus supplied without exposing the cluster, and without the necessity of using smoke to drive the bees down.

This feeder may be used for stimulating as well as for feeding up for winter, and for either purpose it is away ahead of anything else we sell. As it hangs down in the warmth like a brood frame, the bees will take syrup from it when they would not from any other feeder. It holds three pints. Price, 40c each.

The Use of Comb Foundation

There is little question but that it pays to use foundation in full sheets in the brood frames and sections, especially the latter. If you think you cannot afford so much you should at least have a strip for a starter. It will help you much more than it costs you, in getting straight even combs. You can use a starter any width from one inch up. In sections by far the best results are obtained by using a bottom starter not over 1/4 inch, and a full top starter reaching to within 1/4 to 3-16 of an inch of the bottom starter.

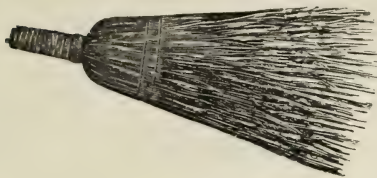
Table of Prices of Comb Foundation

	In Lots of		
	1-lb.	5-lb.	10-lb.
Medium Brood	\$0.60	\$0.58	\$0.57
Thin Super .....	.70	.68	.65

By mail 25c extra. Not less than 1 pound mailed. We consider this a dangerous way of sending these goods.

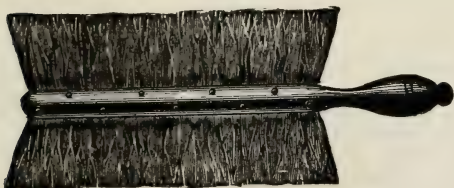
BEE BRUSHES

Cogshall's Bee Brush



This is a sort of whisk broom especially adapted and made for brushing bees. The strands are thinned out and longer, so as to give a soft pliable sweep to the combs. Price, by mail, 25c.

The Dixie Bee Brush



While some might prefer the Cogshall, others would use in preference this one. It is a double brush with a strong wood handle, put together with brass nails to avoid rust. The strands are soft and pliable to give an easy, gentle sweep. The brush is long enough to reach clear across an ordinary Langstroth frame, and one or two sweeps ought to clear the comb free from all bees. Price by mail, 25c.

Bee Book

No bee-keeper should be without at least one good text book. They will aid him in his pursuit and make him familiar with the habits and proper management of the bees.

THE A B C OF BEE CULTURE REVISED EDITION

Probably no other bee book in the world, in any language, has had such an enormous sale as this one. It is a complete cyclopedia of bee culture, 500 octavo pages, and contains something like 400 engravings, many of them full pages. It is up to date. Price, \$1.50; postpaid, \$1.75.



ALEXANDER ELECTRIC ALARM AND LIGHTING SYSTEM

These outfits can be installed in any standard box incubator by anyone who can read the directions and can use a screw-driver, with very little trouble. The operation is so simple and positive that a child can adjust it. A specially constructed thermostat is placed in the egg chamber and can be adjusted and set so that an alarm bell rings when the temperature goes above or below any two desired points, for instance 98 and 105 degrees. If your lamp goes out you know it before the eggs are chilled. If the lamp burns too high or the regulator fails to work properly, your hatch cannot be spoiled, for the bell will ring and continue to ring until you shut it off.

It one bell cannot be placed where you can hear it from all of your likely day and night locations about the place, you can connect another bell to the outfit and locate it

where you like. As many as four bells will operate on each outfit. Special systems will be furnished where more than two incubators are in use, with an annunciator which indicates which incubator is above or below normal temperature. Prices on application.

When airing the eggs, you simply set the low point regulating nut at 80 degrees, or at any point at which you want the temperature to drop, and forget the machine until the bell rings.

Anyone who is in the habit of reading temperatures with matches, candles and lamps, will wonder how they ever operated without the lighting feature of this outfit. The slight pressure of your finger on a switch conveniently located on top of the machine throws a sharp ray of light on the thermometer and floods the interior of the incubator with light. The convenience and safety of this feature alone is worth the price of the outfit.

We have made the price of this outfit, complete, with 1 bell, battery, lamp, wire, switches, full directions, etc., \$3.25. The battery should last a full season or more and can be replaced at any electrical supply house at a small cost. Extra bells, 50c each.

Eggs for Hatching

We submit the following list of eggs for hatching, giving the names of the breeders of each variety, with the belief that you will find everyone of these parties reliable, as they have all been engaged in the poultry business for years and have profited by their experiments and experience. We also ask you to note the followings reasons why chicks die in shells:

Why Chicks Die in Shells

Why chicks die in the shell is a question of growing importance to poultrymen, and especially to those using incubators to hatch their chicks. Before hatching by artificial methods came in vogue little was heard of chickens dying in the shells. When only one or two dead chicks were found in the shell in a setting of eggs there was less cause for remark than where a large number are found in the incubator. There are many conditions surrounding the egg before and after it is set that may result in the germ dying before it has reached full development. The causes of dead germs may be enumerated as follows:

- 1st. Eggs that are kept too long, or in a too warm or a too cold place before being incubated.
- 2nd. Eggs that are shipped on long journeys, or roughly handled while en route.
- 3rd. Eggs that are set before being given a chance too rest 24 hours after a long journey.
- 4th. Eggs that are not properly turned or exposed to the fresh air during the period of incubation.
- 5th. Eggs that are improperly incubated by the lack of insufficient heat or an even temperature.

Then there are causes that lie back of the eggs and the conditions surrounding them:

- 1st. The breeding stock from which the eggs are obtained may not be in proper condition.
- 2nd. The feed, care, quarters and runs may be improper and not conducive to the good health and condition of the breeding stock.
- 3rd. Improper or too abundant nourishment, the lack of exercise and a failure to supply plenty of fresh air.
- 4th. Too old or too impotent males, or too old or too fat females, or under developed breeding stock.

LEGHORNS

S. C. BUFFED LEGHORNS. Mr. W. J. Moore, who is a member of The American Buff Leghorn Club, has great faith in the money-making qualities of this breed, and has been and is continually sounding their praises, and has bred these to such a state of perfection that at the Lincoln County Fair, Ferry County Fair, and the Spokane Interstate Fair of 1911, he obtained first prize on the following: Cock, Cockerel, Hen, Pullet, and Pen. Setting, \$2.00; 50, \$5.50; 100, \$10.00. Special pens, \$3.00 per setting.

S. C. WHITE. The Balmat-Skinner Co. has been engaged in the poultry business for several years, and the quality of their stock may be judged by the following prizes they secured at the Spokane Interstate Fair of 1911:

First and second prizes on Cocks. First on Cockerel. First on Pullet. Second on Hen and first on Pen. The strain they have developed are proving themselves most excellent layers.

Settings, \$1.50; 50, \$4.50; 100, \$8.00; 500 and up to 700, per 100, \$..... Special pens, \$3.00 and \$5.00 per setting.

S. C. BROWN LEGHORNS. Mr. W. A. Scott, who will fill our orders for eggs of this breed for this season, is a member of The Single Comb Brown Leghorn Club and is a firm believer in the laying qualities of the Leghorns, especially the S. C. Browns. The standing of this stock may be judged from the fact that at the Spokane Interstate Fair of 1911 he secured first on Pullet, second on Pens, and third on Pullet.

Setting, \$2.00; 50, \$5.50; 100, \$10.00.

RHODE ISLAND REDS

R. C. The strain of this variety, as bred by W. E. Bigelow & Son, is one of the best laying strains in the west. They are amongst the original introducers of this splendid strain, and secured the prize for the best general color at the Spokane Poultry Show, December, 1911.

Settings, \$1.50; 50, \$5.50; 100, \$10.00.

S. C. Mr. Pfeffer persistently continues to breed this variety, believing that they are the best variety for general purposes. At the Spokane Interstate Fair, 1911, he carried off the following prizes: First on Pen, second on Cock; third on Cockerel, third on Pullet, and third on Hen.

Setting, \$1.50; 50, \$5.50; 100, \$10.00.

ORPINGTONS

S. C. WHITE. This variety has been bred by Mm. J. M. Arant for four years. They are the Hellerstrass and Philo strains, and are noted for their laying qualities. At the Spokane Poultry Show, January, 1911, Mr. Arant took second prize on Cockerel, and at the Whitman County Poultry Show he received a first on Cockerel, Pullet, Pen, and second on Pullet.

Setting, \$2.50; 50, \$7.50; 100, \$15.00.

S. C. BUFF. The Milliken Poultry Farm will supply us with eggs of this well known breed from their high-grade stock.

Setting, \$1.50; 50, \$4.00; 100, \$7.00. Special settings, \$7.00.

PLYMOUTH ROCKS

BAREED. Mr. George F. Gaub has been giving special attention to the development of a strain that would produce the greatest number of eggs, and his success may be judged from the following unique record. One of his flock produced an egg each day for 44 successive days, and then, unable to stand the strain, dropped dead. While he has not been exhibiting at shows, his birds are equal to those exhibited by other poultry men.

Setting, \$2.00; 50, \$5.50; 100, \$10.00.

MINORCAS

S. C. BLACK. Mr. I. M. Fink has been giving close attention to the development of this breed. His hobby is the production of eggs, hence his special study and efforts has been along this line. He believes he has the best laying strain of this breed that it is possible to secure, any place.

Setting, \$1.50; 50, \$4.00; 100, \$7.00.

BANTAMS

JAPANESE. Mr. J. M. Arant is an enthusiast on this variety of bantams, and has given these much attention, consequently believes he has got some very fine specimens. At the Spokane Poultry Show, December, 1911, he received first on Pen and first on Cockerel.

Setting, \$2.50. Supplied only in settings.

WHITE WYANDOTTES

Mrs. J. W. G. Hanford breeds this variety exclusively. We will be pleased to supply our customers with eggs from this stock. Mrs. Hanford says she has developed a flock of great layers, by the continued use of the trap nest system, that her flock averages over 200 eggs per year per hen. That individual records are much higher, and that they lay most of their eggs in winter. In the Spokane Poultry Show, 1911, she received firsts on Pullets, second and fourth on Cocks, and third on Pen.

Setting, \$2.50; 50, \$6.50; 100, \$10.00.

BLUE ANDALUSIANS

R. C. It is said that there are really only three firms breeding this splendid variety in the United States, and that W. E. Bigelow & Son is one of these firms. At the Spokane Poultry Show, December, 1911, this flock received the following prizes: First on Cockerel, first on Pen, and first, second, third and fourth on Pullet, also first on color and first on shape.

Eggs furnished in settings only. Setting, \$2.50.

DUCKS

IMPERIAL PEKIN AND INDIAN RUNNER. Mr. W. J. Moore reports to us that he has received more prizes on these than all other competitors combined.

Per setting of 11 eggs, \$2.00.

GEESE

WHITE EMBDEN. These are about the same size as the Toulouse, but are preferred on account of their white feathers. These are owned by Mr. W. J. Moore, and received first prize at the Spokane Interstate Fair of 1911.

Settings of 5 eggs, \$2.00.

PEN

EGG SCORE

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total
January																																
February																																
March																																
April																																
May																																
June																																
July																																
August																																
September																																
October																																
November																																
December																																

Profit in Hens

It has been satisfactorily demonstrated that the hen is a great money maker and in no place in the United States can the hen be used as profitably as in the vicinity of Spokane. Best results can be obtained by using

Cyphers Incubators and Brooders

By Feeding Clover Leaf

Chick Feed

Clover Leaf Balanced Ration

Clover Leaf Grit

Clover Leaf Scratch Feed

And a generous supply of Beef Scraps, Oyster Shell, Charcoal, Alfalfa Meal and Bone.

FORCE YOUR HENS TO LAY IN THE WINTER by feeding them Sprouted Oats—they have no equal. For Oat Sprouter, see page 49.

Conkey's Lice Powder

Conkey's Lice Killer

Conkey's Roup Remedy

Conkey's Laying Tonic

Conkey's Goods are guaranteed to do the work or money refunded.

NUMBER OF PLANTS TO THE ACRE

Dis. Apart	No. Plants	Dis. Apart	No. Plants	Dis. Apart	No. Plants	Dis. Apart	No. Plants
12 x 1 in.	522,720	25 x 18 in.	15,520	36 x 36 in.	4,840	60 x 60 in.	1,745
12 x 3 in.	174,240	30 x 1 in.	209,088	42 x 12 in.	12,446	8 x 1 ft.	5,445
12 x 12 in.	43,560	30 x 6 in.	34,848	42 x 24 in.	6,223	2 x 3 ft.	1,815
16 x 1 in.	382,040	30 x 12 in.	17,424	42 x 36 in.	4,148	8 x 8 ft.	680
18 x 1 in.	348,480	30 x 16 in.	13,068	48 x 12 in.	10,890	10 x 1 ft.	4,356
18 x 3 in.	116,160	30 x 20 in.	10,454	48 x 18 in.	7,790	10 x 6 ft.	726
18 x 12 in.	29,040	30 x 24 in.	8,712	48 x 24 in.	5,445	10 x 10 ft.	435
18 x 18 in.	19,360	30 x 30 in.	6,970	48 x 30 in.	4,356	12 x 1 ft.	3,630
20 x 1 in.	313,635	36 x 3 in.	58,080	48 x 36 in.	3,630	12 x 5 ft.	736
20 x 20 in.	15,681	36 x 12 in.	14,520	48 x 48 in.	2,723	12 x 12 ft.	302
24 x 24 in.	10,890	36 x 18 in.	9,680	60 x 36 in.	2,901	16 x 1 ft.	2,722
24 x 1 in.	261,360	36 x 24 in.	7,260	60 x 48 in.	2,178	16 x 16 ft.	170

QUANTITY OF SEED REQUIRED

	Quantity per Acre		Quantity per Acre
Alfalfa	8 to 15 lbs.	Hemp	40 to 50 lbs.
Alyske	6 to 15 lbs.	Horse Radish Roots	15000 to 20000
Artichoke, 1 oz. to 500 plants.	6 oz.	Kale, 1 oz. to 150 feet of drill	1 lb.
Asparagus, 1 oz. to 500 plants.	1 lb.	Kale, Thousand Headed	1 lb.
Barley	100 lbs.	Kohlrabi, 1 oz. to 150 feet of drill	2 lbs.
Beans, Dwarf, 1 lb. to 100 feet of drill	50 lbs.	Kafir Corn	6 to 8 lbs.
Beans, Tall, 1 lb. to 150 hills	25 lbs.	Leek, 1 oz. to 100 feet of drill	4 lbs.
Beet, Garden, 1 oz. to 50 feet of drill	5 lbs.	Lettuce, 1 oz. to 150 feet of drill	3 lbs.
Beet, Sugar, 1 oz. to 50 feet of drill	5 lbs.	Melon, Musk, 1 oz. to 60 hills	2 to 3 lbs.
Beet, Mangel Wurzel, 1 oz. to 50 feet of drill	5 lbs.	Melon, Water, 1 oz. to 30 hills	3 to 4 lbs.
Broccoli, 1 oz. to 2000 plants	4 oz.	Millet	30 lbs.
Brussels Sprouts, 1 oz. to 2000 plants	4 oz.	Nasturtium, 1 oz. to 50 feet of drill	15 lbs.
Broom Corn	12 lbs.	Oats	75 lbs.
Buckwheat	45 lbs.	Okra, 1 oz. to 100 feet of drill	8 lbs.
Cabbage, 1 oz. to 1500 plants	½ lb.	Onion, 1 oz. to 100 feet of drill	4 to 8 lbs.
Carrot, 1 oz. to 125 feet of drill	3 lbs.	Onion, for sets	30 to 80 lbs.
Cauliflower, 1 oz. to 2000 plants	3 oz.	Onion Sets, 1 lb. to 75 feet of drill	400 lbs.
Celery, 1 oz. to 5000 plants	1 lb.	Parsley, 1 oz. to 300 feet of drill	3 lbs.
Cheat	100 lbs.	Parsnip, 1 oz. to 200 feet of drill	6 lbs.
Chicory, 1 oz. to 100 feet of drill	4 lbs.	Peas, Garden, 1 lb. to 50 feet of drill	60 lbs.
Clover, white and Alyske	6 to 10 lbs.	Peas, Field	100 lbs.
Clover, White, for Lawns	25 to 100 lbs.	Pepper, 1 oz. to 100 plants	400 lbs.
Clover, Red, Mammoth and Crimson	12 to 20 lbs.	Potatoes	400 lbs.
Collards, 1 oz. to 2000 plants	4 oz.	Pumpkin, 1 oz. to 30 hills	3 to 4 lbs.
Corn, Sweet, 1 lb. to 200 hills	8 to 12 lbs.	Radish, 1 oz. to 100 feet of drill	10 lbs.
Corn, Field	8 to 12 lbs.	Rape, Dwarf Essex	5 to 10 lbs.
Corn, Fodder	8 to 20 lbs.	Rutabaga, 1 oz. to 150 feet of drill	2 lbs.
Corn, Pop	8 to 10 lbs.	Rye	60 to 80 lbs.
Cress, 1 lb. to 100 feet of drill	1 lb.	Salsify, 1 oz. to 50 feet of drill	8 lbs.
Cucumber, 1 oz. to 60 hills	2 to 3 lbs.	Speltz	100 lbs.
Egg Plant, 1 oz. to 2000 plants	4 oz.	Spinach, 1 oz. to 100 feet of drill	8 lbs.
Endive, 1 oz. to 100 feet of drill	4 oz.	Squash, Summer, 1 oz. to 25 hills	3 lbs.
Flax, for seed 30 lbs. to acre. For fiber	50 lbs.	Squash, Winter, 1 oz. to 12 hills	4 lbs.
Grass, Lawn, 1 lb. to 300 square ft.	80 lbs.	Sugar Cane	10 lbs.
Grass, Kentucky Blue, Canadian Blue	20 lbs.	Sunflower	8 lbs.
Timothy	6 to 12 lbs.	Tobacco, 1 oz. to 10,000 plants	3 oz.
	Quantity per Acre	Tomato, 1 oz. to 2000 plants	4 oz.
Red Top, in chaff 601 bs. Solid	30 lbs.	Turnip, 1 oz. to 150 feet of drill	2 lbs.
Rye Grass, Oat Grass, Fescue Grasses	30 lbs.	Vetches, Spring	60 to 90 lbs.
Orchard Grass	40 to 60 lbs.	Vetches, Winter	30 to 60 lbs.
		Wheat	60 to 80 lbs.

WEIGHTS OF SEED PER BUSHEL

	Lbs. per bu.		Lbs. per bu.		Lbs. per bu.
Alfalfa Clover	60	Oats	32	Flax	56
Red Clover	60	Barley	48	Buckwheat	50
White Clover	60	Corn	56	Rye	56
Alyske Clover	60	Orchard Grass	14	Wheat	60
Timothy	45	Hungarian	48	Sugar Cane for Fodder	50
Blue Grass	14	Common Millet	50	Peas, Field	60
Mixed Grasses	14	German Millet	50	Top Onion Sets	28
English Rye Grass	20	Hemp	44		

USUAL DISTANCES FOR PLANTING

Beans, Bush, drills 2 to 3 feet apart.	Melon, Water, 7 to 8 feet each way.
Beans, Pole, 3 to 4 feet each way.	Onions, drills 14 to 20 inches apart.
Beets, Early, drills 12 to 18 inches apart.	Parsnip, drills 18 to 36 inches apart.
Beets, Late, drills 2 to 3 feet apart.	Peach Trees, 18 to 24 feet each way.
Blackberries, erect growing, 6 to 9 by 4 feet.	Pear Trees, Standard, 20 to 25 feet each way.
Blackberries, Mammoth and Himalaya, 8 by 24 feet.	Pear Trees, Dwarf, 12 to 15 feet each way.
Cabbage, Early, 16 by 30 inches.	Peas, drills 2 to 3 feet apart.
Cabbage, Late, 24 by 30 inches.	Pepper, 15 to 18 inches by 2 to 2½ feet.
Carrots, drills 1 to 2 feet apart.	Plum Trees, 15 to 20 feet each way.
Corn, Sweet, 3 to 3½ feet by 9 to 24 inches.	Potatoes, 12 to 18 inches by 2½ to 3 feet.
Corn, Field, 3½ to 4 feet each way.	Pumpkins, 8 to 10 feet each way.
Cucumber, 4 to 5 feet each way.	Quince Trees, 15 feet each way.
Currants, 5 by 3 feet.	Radish, drills 10 to 18 inches apart.
Egg Plant, 3 by 5 feet.	Raspberries, 6 to 8 by 3 feet.
Lettuce, drills 18 inches apart.	Rhubarb, 2 to 4 feet by 4 feet.
Melon, Musk, 5 to 6 feet each way.	Salsify, drills 18 to 24 inches apart.
Celery, rows 3 to 4 feet 6 inches in row.	Spinach, drills 12 to 18 inches apart.
Cherry Trees, 15 to 20 feet each way.	Squash, Bush, 3 to 4 feet by 4 feet.
Cauliflower, 2 by 2 to 2 by 3 feet.	Squash, Running, 12 feet each way.
Apple Trees, 20 to 30 feet each way.	Strawberries, Hills, 36 by 18 inches.
Asparagus, 3 to 4 by 2 feet.	Strawberries, Matted Rows, 48 by 12 inches.
Gooseberries, 5 by 3 feet.	Sweet Potatoes, 2 feet by 3 to 4 feet.
Grapes, 8 by 8 to 10 by 12 feet.	Tomato, 4 feet by 4 to 5 feet.

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